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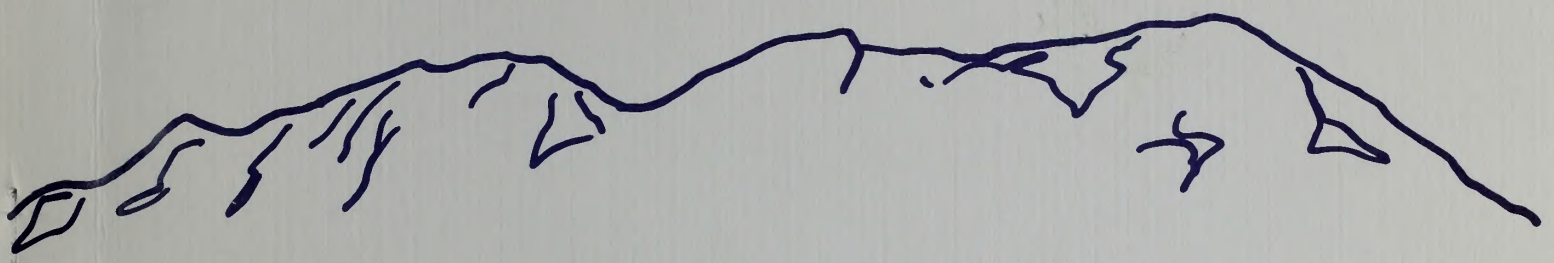
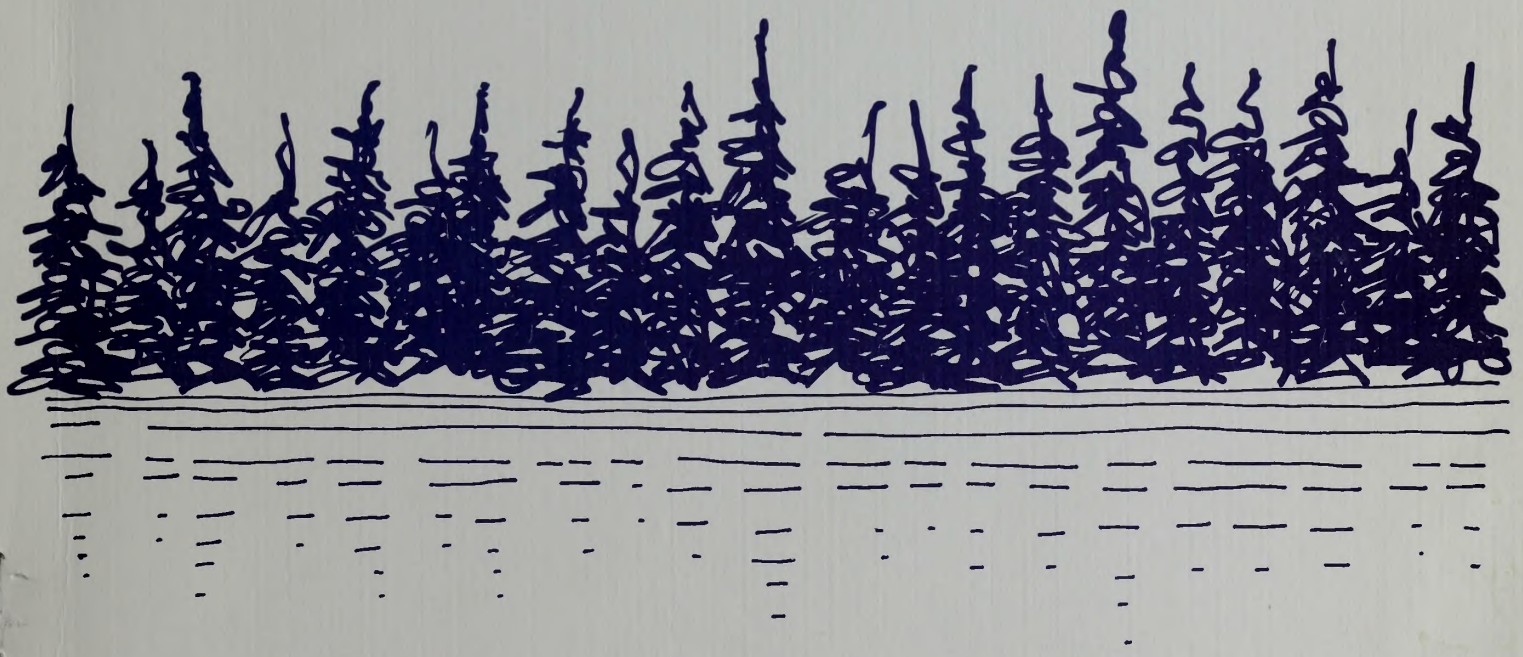


PROPOSED
RESOURCE MANAGEMENT PLAN/
FINAL ENVIRONMENTAL IMPACT STATEMENT

for the
White Mountains National Recreation Area



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Environmental Impact Statement

Draft ( ) Final (X)

White Mountains National Recreation Area
Yukon Resource Area
Fairbanks, Alaska

Lead Agency
U.S. Department of the Interior, Bureau of Land Management

Type of Action
Administrative (X) Legislative ( )

Abstract

This environmental statement addresses a plan and alternatives for the management of the White Mountains National Recreation Area as required by Section 403 of P.L. 96-487 (ANILCA). Six alternatives incorporating a range of management emphasis from resource development to environmental protection are presented and analyzed. Public comments were used to develop a preferred alternative (proposed plan) that provides for primitive and semi-primitive motorized recreation, protection of scenic qualities, and continuation of land and resource uses consistent with the intent of the plan objectives. Environmental consequences of the alternatives are analyzed and presented.

For further information about this Environmental Impact Statement:

Michael T. Green, Area Manager
Bureau of Land Management
Yukon Resource Area
Fairbanks, Alaska 99707

Telephone Number (907) 356-5368

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United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Alaska State Office
701 C Street, Box 13
Anchorage, Alaska 99513

Dear Reader:

Enclosed for your review and future reference is the final environmental impact statement (FEIS) for the White Mountain Resource Management Plan (RMP). This document also includes the proposed plan, which is a modified version of the preferred alternative discussed in the draft RMP/EIS published in December, 1983. The proposed plan incorporates all RMP-level guidance needed to resolve the five land management issues identified earlier in the planning process.

Any person or group who participated in the planning process and has an interest which is or may be adversely affected by the approval of this White Mountains FEIS/RMP may protest this action to the Director, Bureau of Land Management. Protests should be sent to the Director (202), Bureau of Land Management, 1800 C Street NW, Washington, DC, 20240, prior to December 3, 1984 - the end of the thirty day protest period - and should include the following information:

The name, mailing address, telephone number, and interest of the person filing the protest.

A statement of the issue or issues being protested.

A statement of the part or parts of the plan being protested.

A copy of all documents addressing the issue or issues that were submitted during the planning process by the protesting party, or an indication of the date the issue or issues were discussed for the record.

A concise statement explaining why the proposed decision is believed to be wrong.

At the end of the thirty-day protest period, the proposed plan, excluding any portion under protest, will become final. Approval will be withheld on any portion of the plan under protest until final action has been completed.

Any significant change to the proposed plan made as a result of a protest will be made available for public review and comment prior to final approval and implementation.

I want to personally thank those of you who have contributed to and participated in the development of this plan. I hope your involvement will continue as we move forward into the implementation and monitoring phases of the White Mountain Resource Management Plan and also as we develop RMPs for other BLM lands in Alaska.

Sincerely yours,

Michael J. Penfold
State Director

SUMMARY

The Final Environmental Impact Statement describes effects resulting from the management actions proposed in each of the alternatives, including the proposed plan. A comparative analysis of the effects has led to three general goals to be resolved through this planning effort.

1. Provide for a variety of public outdoor recreational opportunities, emphasizing primitive, or dispersed, recreational values;

2. Protect and improve the water quality of Beaver Creek National Wild River;

3. Provide for multiple use of other resource values where compatible with primitive or semi-primitive motorized recreation.

These goals were derived from an analysis of public comment and Congressional intent in establishing the White Mountains National Recreation Area and the Beaver Creek National Wild River.

Principal issues to be resolved include providing for public outdoor recreation and for conserving scenic, scientific, historic, fish, wildlife, and other values contributing to public enjoyment (including the management of Beaver Creek as a National Wild River). This will be done while also allowing the continuation of valid existing uses and the multiple use of the resource values which do not significantly impair recreation or public enjoyment.

Six areas of concern or need have been identified: (1) recreation needs, (2) coordination of the RMP with the Beaver Creek National Wild River Management Plan, (3) access, (4) wildlife habitat, (5) mineral development, and (6) subsistence use. The draft Environmental Impact Statement, published in January of 1984, developed and analyzed five alternatives, all of which provided various levels of land use allocation and management to meet these needs.

The Proposed Plan, which is the preferred alternative of this final EIS, was developed to emphasize protection of primitive and semi-primitive motorized recreational opportunities. About 56 percent of the area would be managed for primitive values. Protection of the wild and scenic qualities of Beaver Creek National Wild River is a high priority. Other activities will be permitted where they are consistent with recreation management objectives. The Proposed Plan is a modification of Alternative E of the draft RMP/EIS. Public comment on the draft EIS influenced the development of the Proposed Plan.

Alternative A would provide for continuation of present management. It is the "no action" alternative of this EIS, as it proposes continuation of existing management. Recreation management would be aimed primarily

at maintaining present recreational opportunities, in a primitive setting. About 74 percent of the area would be managed for primitive values. Few new facilities or services would be provided. Congressional withdrawal of minerals would remain and development would be allowed only on valid existing claims. Management of wildlife and other resources would remain at a relatively low level.

Alternative B would increase the level of resource protection. Recreation management would still be aimed primarily at maintaining primitive values, but there would be a higher level of visitor services with some use restrictions. About 74 percent of the area would be managed for primitive values. All existing mining claims could be maintained or converted to leases, but there would be stricter mitigation and monitoring of mining operations. Wildlife habitat would be improved and measures would be taken to provide special protection for certain other resources. Access would remain limited.

Alternative C would provide a somewhat wider range of use opportunities. About 44 percent of the area would be managed for primitive values. The remaining lands would be available for economic development, including improved recreational facilities and improved access. Land use regulation would be used to protect wildlife and other resources from possible adverse effects of development.

Alternative D would provide the greatest opportunities for human use of the WMNRA. About 16% of the area would be managed for primitive values. The remainder would be open to recreational as well as mineral development, with special measures to protect wildlife and other resources. Access would be improved.

Alternative E was the preferred alternative in the draft EIS. Recreation would be regarded as the primary use. About 71 percent of the area would be opened to mineral leasing. Those values contributing to recreational enjoyment would be enhanced.

WHITE MOUNTAINS NATIONAL RECREATION AREA

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GLOSSARY
(Including Acronyms and Abbreviations)

ACEC	Area of Critical Environmental Concern. An area within the public lands where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values; fish and wildlife resources or other natural systems or processes; or to protect life and provide safety from natural hazards.
ADF&G	Alaska Department of Fish and Game
ANILCA	Alaska National Interest Lands Conservation Act of 1980 (P.L. 96-487)
ANOMALY	A deviation from the background mineral concentrations expressed in parts per million or parts per billion.
AUTHORIZED OFFICER	Any employee of the Bureau of Land Management to whom the authority to perform specific duties has been delegated.
BLM	Bureau of Land Management. A federal agency within the Department of the Interior charged with the management of public lands.
BUREAU	Bureau of Land Management
CASUAL USE	Any short-term non-commercial activity which does not cause appreciable damage or disturbance to the public lands, their resources or improvements and which is not prohibited by closure of the lands to such activities.
CLIMAX VEGETATION TYPES (climax communities)	A relatively stable community of plants that is achieved through a successful adjustment to the environment.
CRITICAL HABITAT	The area of land, water, and airspace required for the normal needs and survival of wildlife species of special concern.

CRITICAL MINERALS

"Those minerals essential to the national defense the procurement of which, during war, while difficult, is less serious than these of strategic minerals (because they can either be domestically produced or obtained in more adequate quantities from reliable foreign sources)."
(Thrush, P.W., 1968, A Dictionary of Mining, Mineral, and Related Terms, U.S. Dept. of the Interior, Bureau of Mines, 1269 pages.)

CRITICAL PROTECTION SITE

A site designated through the fire management planning process which receives the highest priority for fire suppression action in order to protect human life, inhabited property, and designated physical developments.

CRUCIAL HABITAT

Use area necessary for the perpetuation of the population of one or more species. These areas provide an essential element of the life cycle of a species or population. Crucial habitat may include areas essential for food, shelter, breeding, rearing, escape, and movement.

CULTURAL RESOURCES

Those fragile and nonrenewable remains of human activity, occupation, or endeavor reflected in districts, sites, structures, buildings, objects, artifacts, ruins, works of art, architecture, and natural features that were of importance in human events. These resources consist of (1) physical remains, (2) areas where significant human events occurred--even though evidence of the event no longer remains, and (3) the environment immediately surrounding the resource.

CULTURAL RESOURCE INVENTORY

A descriptive listing and documentation, including photographs and maps, of cultural resources. Included are the processes of locating, identifying, and recording sites, structures, buildings, objects, and districts through library and archival research, information from persons knowledgeable about cultural resources, and varying levels of intensity of on-the-ground field surveys.

EA	Environmental Assessment
ECOLOGICAL RESERVE SYSTEM	A national network of sites that will assist scientists in identifying areas particularly well suited for conducting specific projects. These sites, called Research Natural Areas, will provide the scientist with a place to conduct long term research without disturbance from developmental activities.
EIS	Environmental Impact Statement
ENDANGERED SPECIES	An animal or plant whose prospects of survival and reproduction are in immediate jeopardy; further defined by the Endangered Species Act of 1973, as amended.
ENERGY MINERALS	Fossil fuels which provide energy, such as coal and oil and gas.
EXPLORATION	The search for energy and non-energy minerals without surface disturbance or the use of explosives.
FEDERAL LANDS	Lands owned by the United States, without reference to how the lands were acquired or which federal agency administers the lands, including mineral estates or coal estates underlying private surface, but excluding lands held by the United States in trust for Indians, Aleuts, or Eskimos.
FLOODPLAIN	The nearly level alluvial plain that borders a stream and is subject to inundation during high water.
FLPMA	Federal Land Policy and Management Act of 1976 (P.L. 94-579)
GVW	Gross Vehicle Weight
HABITAT MANAGEMENT PLAN	A written and approved activity plan for a geographical area of public lands which identifies wildlife habitat management actions to be implemented in achieving specific objectives related to RMP/MFP planning document decisions.

HARDROCK MINING

A term that refers to underground or open pit mining as opposed to placer or hydraulic mining.

HMP

Habitat Management Plan

INHOLDING

A parcel of non-federal land surrounded by federal land.

LEASABLE MINERALS

Traditionally, those minerals other than oil and gas and coal that are subject to leasing. The Mineral Leasing Act of 1920, as amended, provides for leasing of deposits of chlorides, sulphates, carbonates, borates, silicates, or nitrates of potassium and sodium; phosphate; native asphalt, solid and semisolid bitumen and bituminous rock or sands from which oil is recovered only by special treatment after the deposit is mined; minerals in acquired lands which would be subject to location under the United States mining laws if located in public domain lands; and for the development of sodium, magnesium, aluminum or calcium deposits, in any forms described and associated with potassium deposits.

Leasable Minerals within the WMNRA include all minerals previously locatable under the United States Mining Laws as well as non-energy leasables.

LIMITED MINERAL DEVELOPMENT ZONE

The Limited Mineral Development Zone is an area where limitations on mineral development would be significantly different from those which would apply throughout the rest of the WMNRA. Within the LMDZ:

1. Holders of properly located and maintained mining claims would be allowed to file for preference-right leases to their claims. No other leases would be granted for locatable minerals.

2. Oil and gas leasing would be permitted, but only with no surface occupancy.

3. No leasing of non-energy minerals would be permitted.

LMDZ	Limited Mineral Development Zone
LOCATABLE MINERALS	Minerals or materials subject to disposal and development through the Mining Law of 1872 (as amended). Generally includes metallic minerals such as gold and silver and other minerals (bentonites, limestone, talc, some zeolites, etc.).
MITIGATING MEASURES	Steps developed through the environmental assessment process and usually taking the form of stipulations attached to an authorizing document which are designed to minimize or eliminate environmental impacts.
mg/l	Milligrams per liter
ml/l	Milliliters per liter
MULTIPLE USE MANAGEMENT	The management of public lands and their various resource values so they are used in the combination that will best meet the present and future needs of the American people.
NATIONAL REGISTER OF HISTORIC PLACES	A listing of historic properties throughout the nation which was established in 1966 by an Act of Congress (P.L. 89-665). Its purpose is to identify districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, and culture.
NEPA	National Environmental Policy Act of 1969 (P.L. 91-190)
NTU	Nephelometric Turbidity Unit. A measure of the amount of light scattered by a water sample due to particles in suspension. A relative indication of the amount of suspended material in a water sample.
NWR	National Wild River. A component of the National Wild and Scenic Rivers System, designated by the Wild and Scenic Rivers Act (P.L. 90-452).
OFF-ROAD VEHICLE	Any motorized vehicle capable of or designed for travel on or immediately over land, water or other natural terrain.

OFF-ROAD VEHICLE DESIGNATION

OPEN — Designated areas and trails where off-road vehicles may be operated (subject to operating regulations and vehicle standards set forth in BLM Manuals 8341 and 8343).

LIMITED — Designated areas and trails where the use of off-road vehicles is subject to restrictions, such as limiting the number or types of vehicles allowed, dates, and times of use (seasonal restrictions); limiting use to existing roads and trails; or limiting use to designated roads and trails. Under the designated roads and trails designation, use would be allowed only on roads and trails that are signed for use. Combinations of restrictions are possible, such as limiting use to certain types of vehicles during certain times of the year.

CLOSED — Designated areas and trails where the use of off-road vehicles is permanently or temporarily prohibited. Emergency use of vehicles is allowed.

ORV — Off-road vehicle

PALEONTOLOGY — The study of fossils and ancient life forms.

PATENT — The original conveyance document from the U.S. Government granting legal title to a recipient for surveyed public lands.

PEREGRINE FALCON RECOVERY PLAN - ALASKA POPULATION — This recovery plan for the Alaska peregrine falcon was developed by U.S. Fish and Wildlife Service in September, 1982. It outlines steps and procedures which, if carried out, will result in an increase of the peregrine falcon population to a non-endangered level in Alaska.

P.L. 90-190 — Public Law 90-190. National Environmental Policy Act of 1969 (NEPA).

P.L. 90-542 — Public Law 90-542, the Wild and Scenic Rivers Act of 1968.

P.L. 94-579 — Public Law 94-579, Federal Land Policy and Management Act of 1976. (FLPMA).

P.L. 96-487	Public Law 96-487, the Alaska National Interest Lands Conservation Act of 1980 (ANILCA).
PLACER MINING	A form of mining in which the surface material is washed for gold or other valuable minerals. When water under pressure is employed to break down the gravel, the term hydraulic mining is generally used.
PLAN OF OPERATION	A document required by 43 CFR 3809, for any mining operation which disturbs more than five acres or where valid existing rights are exercised.
PLANNING CRITERIA	The factors used to guide development or revision of the resource management plan, to ensure that it is tailored to the issue as initially identified and to ensure that unnecessary data collection and analyses are avoided. Planning criteria are developed to guide the collection and use of inventory data and information, the analysis of the management situation, the design and formulation of alternatives, the estimation of the effects of alternatives, the evaluation of alternatives, and the selection of the preferred alternative.
PRESCRIBED BURN	An intentionally ignited wildland fire that burns in a designated area under predefined weather and fuel moisture conditions, in order to achieve specific land and resource management objectives.
ppm	Parts per million
PRMP	Preliminary Resource Management Plan
PRIMITIVE	One of the six classifications in the Recreation Opportunity Spectrum. In an area classified as Primitive, there is an extremely high probability of experiencing isolation from the sights and sounds of other humans. The environment provides an opportunity to experience tranquility and a closeness to nature, while offering a high degree of challenge and risk in developing outdoor "survival" skills and achieving independence and self-reliance.

RAMP	Recreation Activity Management Plan
RARE PLANT	Rare plants are those taxa recognized as having very low population numbers and/or very limited habitat.
RECLAMATION	Taking such reasonable measures as will prevent undue or unnecessary degradation of federal lands, including recontouring land disturbed by operations, stockpiling topsoil for final application after recontouring, and, where necessary, revegetating disturbed areas so as to provide diverse vegetative cover.
RECREATION OPPORTUNITY SPECTRUM	A continuum used to characterize recreation opportunities in terms of setting, activity, and experience opportunities. The six classes in the ROS are Primitive, Semi-Primitive, Non-Motorized, Semi-Primitive Motorized, Roaded Natural, Rural, and Urban.
RENEWABLE RESOURCES	All of the products and physical values produced or continued within BLM lands which could be restored or replenished as they are used (e.g., wildlife, vegetation, water). Does not include resources such as minerals, soils, or cultural artifacts, which once used or destroyed, are gone forever.
RESEARCH NATURAL AREA	An area that is established and maintained for the primary purpose of research and education because the land has one or more of the following characteristics: (1) A typical representation of a common plant or animal association; (2) an unusual plant or animal association; (3) a threatened or endangered plant or animal species; (4) a typical representation of common geologic, soil, or water features; or (5) outstanding or unusual geologic, soil or water features.
RIPARIAN AREA	A specialized form of wetland with characteristic vegetation restricted to areas along, adjacent to, or contiguous with, rivers and streams. Also, lake and reservoir shore areas which are periodically flooded, as well as lakes with stable water.

RMP	Resource Management Plan
RNA	Research Natural Area
ROS	Recreation Opportunity Spectrum
SALEABLE MINERALS	Minerals such as common varieties of sand, stone, gravel, cinders, pumice, pumicite, and clay which may be acquired under the Materials Act of 1947, as amended.
SEMI-PRIMITIVE MOTORIZED	One of six classifications in the Recreation Opportunity Spectrum. In an area classified as Semi-Primitive Motorized, there is a moderate probability of experiencing isolation from the sights and sounds of other humans. The environment provides an opportunity to experience tranquility and a closeness to nature, while offering a high degree of challenge and risk in the development of outdoor "survival" skills and the achievement of independence and self-reliance. There is the opportunity to use motorized equipment while in the area.
SEMI-PRIMITIVE NON-MOTORIZED	One of the six classifications in the Recreation Opportunity Spectrum. In an area classified as Semi-Primitive Non-Motorized, there is high but not extremely high probabilty of experiencing isolation from the sights and sounds of other humans. The environment provides an opportunity to experience tranquility and a closeness to nature, while offering a high degree of challenge and risk in the development of outdoor "survival" skills and the achievement of independence and self-reliance.
SENSITIVE PLANTS	Plant taxa that are not yet officially listed but are undergoing a status review or are proposed for listing according to Federal Register notices published by the Secretary of the Interior or the Secretary of Commerce or according to comparable state documents published by state officials. BLM policy applies the full protection of the Endangered Species Act to those species.

SENSITIVE SPECIES	A designation which is (1) applied to species not yet officially listed but which are undergoing a status review or are proposed for listing according to Federal Register notices published by the Secretary of the Interior, or the Secretary of Commerce, or in accordance with comparable state documents published by state officials; (2) applied to species whose populations are consistently small and widely dispersed or whose ranges are restricted to a few localities, such that any appreciable reduction in numbers, habitat availability, or habitat condition might lead toward extinction; or (3) applied to species whose numbers are declining so rapidly that official listing may become necessary as a conservation measure.
SMA	Special Management Area. (See Wildlife Special Management Areas)
STRATEGIC MINERALS	"Those commodities essential to the national defense for the supply of which, during war, we are wholly or in part dependent upon sources outside the boundaries of the United States." (Thrush, P.W., 1968, A Dictionary of Mining, Mineral, and Related Terms, U.S. Dept. of the Interior, Bureau of Mines, 1269 pages.)
SURFACE MANAGEMENT REGULATIONS	43 CFR 3809. Regulations for the implementation of the Mining Law of 1872.
SNCA	Steese National Conservation Area
THREATENED SPECIES	Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range; and further defined by the Endangered Species Act of 1973, as amended.
UNDUE OR UNNECESSARY	Surface disturbances greater than those that would normally result when an activity is being accomplished by a prudent operator in usual, customary, and proficient operations of a similar character. This also takes into consideration the effects of the operation on the other resources and land

	uses, including resources and uses outside the area of operations.
VALID EXISTING RIGHT	A right granted to an operator or holder of an unpatented mining claim to develop a mining property, including the right to reasonable access, by virtue of establishing a mining claim prior to withdrawal. Claims must be maintained in accordance with all laws to continue this right.
VIEWSHED	The landscape that can be directly seen under favorable atmospheric conditions, from a viewpoint or along a transportation corridor.
VISUAL RESOURCE	Land, water, vegetation, animal, and other visible features.
VISUAL RESOURCE MANAGEMENT	The planning, designing, and implementation of management objectives to provide acceptable levels of visual impacts for all BLM resource management activities.
VISUAL RESOURCE MANAGEMENT CLASSES	The degree of acceptable visual change within a characteristic landscape. A class is based upon the physical and sociological characteristics of any given homogeneous area and serves as a management objective.
Class I	areas (preservation) provide for natural ecological changes only. This class includes primitive areas, some natural areas, some wild and scenic rivers, and other similar sites where landscape modification activities should be restricted.
Class II	(partial retention of the landscape character) includes areas where changes in any of the basic elements (form, line, color, or texture) caused by management activitiy should not be evident in the characteristic landscape.
Class III	(partial retention of the landscape character) includes areas where changes in the basic elements (form, line, color, or texture) caused by a management activity may be evident in the characteristic landscape. However, the changes should remain subordinate to the visual strength of the existing character.

Class IV	(modification of the landscape character) includes areas where changes may subordinate the original composition and character. However, they should reflect what could be a natural occurrence within the characteristic landscape.
Class V	(rehabilitation or enhancement of the landscape character) includes areas where change is needed. This class would apply to areas where the quality class has been reduced because of unacceptable intrusions. It should be considered an interim short-term classification until one of the other classes can be reached through rehabilitation or enhancement.
VRM	Visual Resource Management
WILDLIFE SPECIAL MANAGEMENT AREAS	Wildlife areas important to maintaining populations of one or more species. Some factors known to be required for maintenance of populations include suitable reproductive areas (denning, spawning, calving, etc.), high value cover (escape terrain), movement routes, winter range, and overwintering areas for fish. High intensity management will be applied to SMAs through BLM procedures such as the Habitat Management Plan, special stipulations on permits or leases, plans of operation, or other applicable administrative processes to facilitate management of the special habitat values for which the SMA was designated. Special stipulations for activities within an SMA would be developed on a case by case basis in response to a particular proposal. They may include seasonal use restrictions, location and design standards for roads and facilities, and rehabilitation requirements.
WMNRA	White Mountains National Recreation Area

PART ONE

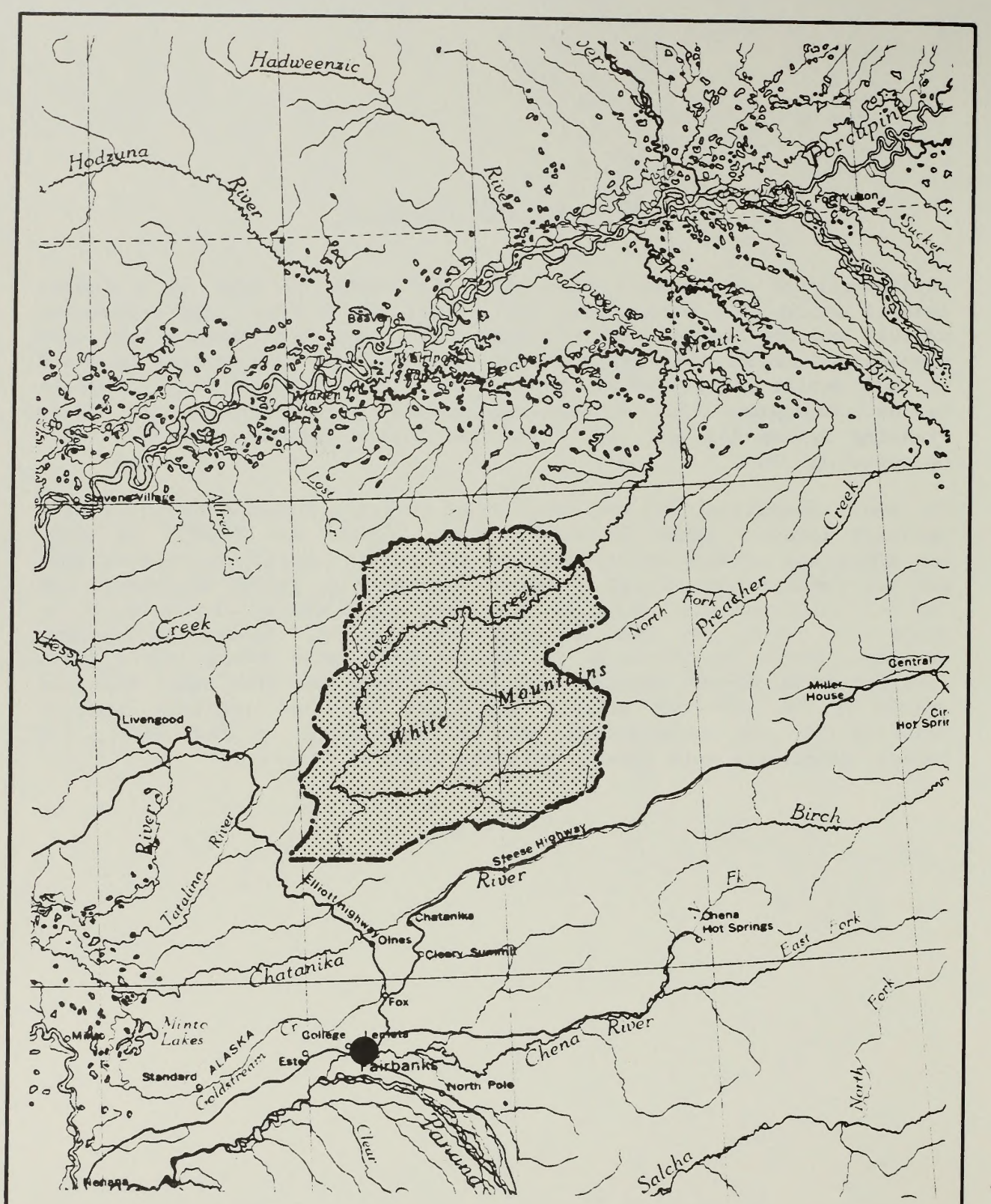
White Mountains National Recreation Area

ENVIRONMENTAL IMPACT STATEMENT

PURPOSE AND NEED FOR ACTION

Development of a Resource Management Plan such as this is a "major federal action (516 DM Appendix 503), requiring an EIS." BLM's planning process and the National Environmental Policy Act requirements have been combined to reduce the time and cost of planning. The process is based on full public disclosure and involvement. This Final EIS and Proposed Resource Management Plan meet all requirements of the NEPA and the Bureau Planning System (43 CFR 1600), and the Alaska National Interest Lands Conservation Act.

The White Mountains National Recreation Area was created by the Alaska National Interest Lands Conservation Act (Public Law 96-487) in 1980. The WMNRA was established to provide for public outdoor recreation use, for the conservation of values which contribute to public enjoyment, and for such utilization or disposal of natural resources as will promote, be compatible with, or not significantly impair, public recreation. Included within the WMNRA is the Beaver Creek Wild River. This plan, required by PL 96-487, incorporates by reference the Wild River Plan and amends it for off-road vehicle use. The law also requires that in planning for the recreational use and management of the WMNRA, the federal government work closely with the State of Alaska.



WHITE MOUNTAINS NATIONAL RECREATION AREA

LOCATION MAP

ISSUE-DRIVEN PLANNING

The BLM planning regulations generally equate land use planning with problem solving or, in other words, with issue resolution. An issue may be defined as an opportunity, conflict, or problem regarding the use or management of public lands and resources. Obviously, not all issues can be resolved through land use planning, but may instead require changes in policy, budgets, or legislation.

As a practical matter, issue-driven planning means that only those aspects of current management direction that are felt to be at issue are examined through the formulation and evaluation of alternatives. Alternatives are not developed for those aspects of current management direction that are felt to be satisfactory.

Six issues are addressed in this document. These issues were identified based on the judgment of planning team members, interagency consultation, public input, and management review.

Recreational Values of the area are of primary importance. Recreational pursuits associated with the Beaver Creek Wild River are the most important due to the access it provides deep into the Recreation Area. Protection of the scenic high country of the White Mountains and the wildlife values associated with recreation enjoyment of the area is also important. The potential conflict of mining in and adjacent to the Area and its effects on water quality and visual resources are major issues of this plan. Decisions are needed on the following questions.

What forms of recreation are most important for this area?

Can the recreational experience be protected and enhanced, while still providing for other uses?

The Beaver Creek National Wild River as designated by Congress and defined in the Wild River Management Plan is incorporated into this RMP to protect the values which led to the wild river designation. Considerable controversy has arisen over the visual resources of the Beaver Creek NWR and the effects of mining, particularly placer, on them. Access to, as well as through, the Wild River corridor has also received considerable debate. Decisions are needed on the following questions.

When and under what conditions is access to and/or crossing of the corridor necessary?

What must be done to protect and improve the water quality of the river and its major tributaries?

What land allocations and management actions are necessary adjacent to the corridor that will protect the wild and scenic character?

Access into the area to enhance its recreational values is desired by many users. However, there is disagreement over the means and location of access. Many prefer limited and mostly non-motorized access, while others want roads and unrestricted use of ORVs. Decisions are needed on the following questions.

What lands should be identified for road corridors, if any?

Are ORV uses appropriate, what kind, where, and under what controls?

Does access to Beaver Creek need improvement?

Wildlife habitat and the enjoyment derived from wildlife are important values to be considered in planning for the recreation area. Public interest and concerns were expressed concerning the maintenance of a viable wildlife population in the area. Decisions are needed on the following questions.

Where are the crucial wildlife habitat areas and how can they be managed?

What activities can occur in the area, and under what conditions, while still protecting and enhancing the viability of the wildlife population?

Mineral exploration and development is a recognized value. Special attention is needed to identify on which lands and under what conditions mineral development can occur while still protecting the recreational values of the area. The area is mineralized, but values, locations, and the potential contribution to the local economy are unknown. Decisions are needed on the following questions.

What lands, if any, can be made available for mineral leasing?

How can the mineral value of the area be better defined?

What special considerations are necessary to protect other important resources from unnecessary damage in those areas where mineral extraction is allowed?

Subsistence use of the area is very limited, but it must be given consideration under the terms of Section 810 of ANILCA.

PLANNING CRITERIA

Planning criteria were developed and revised at several points during the planning process to assure that the planning steps were focused on the issues. The draft EIS/RMP listed a wide range of criteria used to guide resource inventories, to establish an outline for the management situation analysis, to aid in formulating alternatives, and to highlight factors to be considered in evaluating alternatives and in selecting a preferred alternative. The following criteria were used to develop the Proposed Plan and final EIS.

Plan Criteria

Recreation will be regarded as the primary use, emphasizing primitive and semi-primitive values.

All alternatives will establish objectives based on the Recreation Opportunity Spectrum classifications.

All alternatives will provide for conservation of resources contributing to the public enjoyment, including:

Scenic values
Scientific values
Cultural values
Fish and Wildlife
Water
Air quality
Primitive values
Geologic features

All alternatives will be compatible with the Beaver Creek National Wild River Management Plan and do recognize the need to protect the water quality of the river.

All alternatives will provide for access which is consistent with designated land uses.

Access will be managed to maintain ROS classifications, subject to valid existing rights.

Wildlife habitat management will be consistent with Alaska Department of Fish and Game management objectives.

Recreational objectives will be formulated in close cooperation with the State of Alaska.

All alternatives will include opportunities for mineral exploration, development, and extraction consistent with the recreational objectives for the area.

All alternatives will allow resource uses which do not conflict with primary management objectives.

The plan will be coordinated with the plans of adjacent land managers.

Criteria for the Selection of the Proposed Plan

The Proposed Plan will provide for:

- management of the area for public outdoor recreation use and enjoyment,
- continuation of existing uses which are consistent with public outdoor recreational use and enjoyment,
- identification of transportation corridors which provide access for recreation or to those inholdings which require surface access,
- improved access to the hiking opportunities in the interior highlands,
- full protection and maintenance of the water quality of Beaver Creek and its tributaries,
- compatibility with the Beaver Creek National Wild River Plan,
- improved access to the Beaver Creek Wild River,
- increase or maintenance of wildlife populations in accordance with the objectives of the Alaska Department of Fish and Game, and
- mineral development which is consistent with public outdoor recreational use and enjoyment, in addition to the conservation of the scenic, scientific, historic, fish and wildlife, and other values contributing to public enjoyment.

Criteria for Estimating Effects

All alternatives will include an analysis (in Chapter III) of the effects on:

Recreation
Wildlife
Fish
Minerals
Water Resources
Vegetation
Visual Resources
Cultural Resources
Social and Economic Conditions
Support Needs
Subsistence

INTRODUCTION TO THE CHAPTERS

All alternatives are described in Chapter I, Alternatives. Activities which are occurring, or are predicted to occur, as a result of the management direction in each alternative, will be discussed by alternative and resource.

Chapter II, Affected Environment, contains the description of those environments of the White Mountains National Recreation Area affected by these management alternatives.

Chapter III, Environmental Consequences, includes an analysis of impacts and mitigation for each alternative. An analysis of subsistence use and needs, including the findings required by Sec. 810(A) of ANILCA, is found at the end of each alternative discussion. The Sec. 810(A) analysis is summarized near the end of the chapter (see index for specific pages). Resources which will be irreversibly and irretrievably committed, the relationship between the short-term uses and long-term productivity, and those adverse impacts which cannot be mitigated or avoided if the management actions in the Proposed Plan are implemented, are also discussed in this chapter.

Chapter IV, Consultation and Coordination, details the public involvement during the planning process and lists those to whom the draft RMP/EIS and FEIS/PRMP were sent.

Chapter V, Response to Public Comments, contains a detailed response to individual public comments which were received on the draft RMP/EIS during the comment period of January 1, 1984, to March 31, 1984.

CHAPTER I - DESCRIPTION OF ALTERNATIVES

Introduction

A comparative description of the Proposed Plan and other alternative management options will be described in this chapter and is presented in summary form in Table 1-1.

The Bureau's planning regulations require the preparation of several reasonable resource management alternatives which span the spectrum of possibilities from an alternative which would continue present levels and systems of management to one in which there is an emphasis on economic development (43 CFR 1610.4-5).

The Planning Team, with public review and comment, developed four alternatives (Alternative A, B, C, and D), the general definition of which will be found in this introduction. Based on public input and management considerations, a preferred alternative, Alternative E, was developed and presented in the draft EIS as the Preferred Alternative. Alternative E is no longer the preferred alternative. After considerable public scrutiny, comment, and policy discussion, the Proposed Plan was developed and is described in Part II.

The Beaver Creek National Wild River is included within the White Mountains National Recreation Area and receives special consideration in all alternatives. The exact boundaries and management prescriptions for the wild river were determined by the river management plan which became effective May 1, 1984. The river corridor boundaries are shown on Map 2-6 in Chapter II.

General Description of Potential Activities Common to All Alternatives Including the Proposed Plan

POTENTIAL IMPACTS

This EIS is not directed at a particular proposed action, but contains management decisions allocating various parts of the White Mountains National Recreation Area to combinations of resource uses. Because of this approach and the need to examine impacts resulting from a range of proposed actions, different action scenarios and the general impacts of these actions are presented first. Management actions and impacts specific to each alternative are discussed later in this chapter and in Chapter III. The primary emphasis of the WMNRA is the management, protection, and enhancement of the Beaver Creek National Wild River and various other resource values which contribute to the recreational experience.

TABLE 1-1

COMPARATIVE DESCRIPTION OF ALTERNATIVES

WHITE MOUNTAINS NATIONAL RECREATION AREA

Proposed Plan	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
RECREATION					
56% Primitive	74% Primitive	74% Primitive	44% Primitive	16% Primitive	29% Primitive
57% Closed to ORV Except Snow Machine.	7% ORV Limited	75% ORV Limited	45% ORV Limited	17% ORV Limited	30% ORV Limited
162 Miles New Trail	153 Miles New Trail	187 Miles New Trail	218 Miles New Trail	302 Miles New Trail	226 Miles New Trail
17 New Facilities	9 New Facilities	21 New Facilities	38 New Facilities	30 New Facilities	45 New Facilities
WILDLIFE					
60% Caribou present & historical crucial habitat protected	95% Caribou present & historical crucial habitat protected	95% Caribou present & historical crucial habitat protected	40% Caribou present & historical crucial habitat protected	15% Caribou present & historical crucial habitat protected	20% Caribou present & historical crucial habitat protected
90% Dall sheep crucial habitat protected	95% Dall sheep crucial habitat protected	95% Dall sheep crucial habitat protected	80% Dall sheep crucial habitat protected	20% Dall sheep crucial habitat protected	25% Dall sheep crucial habitat protected
100% Peregrine falcon nesting habitat protected	100% Peregrine falcon nesting habitat protected	100% Peregrine falcon nesting habitat protected	100% Peregrine falcon nesting habitat protected	100% Peregrine falcon nesting habitat protected	100% Peregrine falcon nesting habitat protected
FISH					
Sport fishing opportunities enhanced	Sport fishing opportunities will decrease	Sport fishing opportunities will be maintained	Sport fishing opportunities will decrease	Sport fishing opportunities will decrease greatly	Sport fishing opportunities will decrease greatly
MINERALS					
2,660 acres (existing claims) open to placer development	2,660 acres (existing claims) open to placer development	2,660 acres (existing claims) open to placer development	56% of area open to placer development, which includes existing claims and new leasing	83% of area open to placer development, which includes existing claims and new leasing	71% of area open to placer development, which includes existing claims and new leasing
0 new placer leasing	0 new placer leasing	0 new placer leasing	See Chapter I	See Chapter I	See Chapter I
44.5% open to lode development	0 acres open to lode development	0 acres open to lode development	56% of area open to lode development	83% of area open to lode development	71% of area open to lode development
44% open to O&G leasing	0 acres open to O&G leasing	0 acres open to O&G leasing	93% open to O&G leasing	93% open to O&G leasing	71% open to O&G leasing

Proposed Plan	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
WATER RESOURCES					
Manage for .7 ml/l and 25 NTU standard	BLM will follow lead of ADEC and EPA	Water quality levels no lower than current classification	Same as B	Same as B	Same as A
VEGETATION					
Allowing natural fire will be major change factor but will maintain natural pattern	Natural fire will be major modifier	Same as A	Natural and prescribed fires would be major change factor	Greatest effect from natural and prescribed fire	Fire same as D
Localized changes possible on 40% of area	Localized changes possible on 20% of area	Same as A	Development potential on 56% of area	Development potential on 85% of area	Development potential on 70% of area
SOILS					
No change	No change	No change	No change	No change	No change
VISUAL RESOURCES					
Maximizes protection of scenic values on 100% of the area	Provides moderate protection on 100% of the area	Provides moderate protection on 100% of the area	Provides moderate protection in the primitive areas (44%) only	Provides moderate protection in the primitive areas (16%) only	Provides moderate protection in the primitive areas (29%) only
CULTURAL AND PALEONTOLOGICAL RESOURCES					
Site-specific or Class III Inventories will be conducted as development demands. Three historic structures will be enhanced for public benefit	Class III Inventories will be conducted for all proposed surface-disturbing activities	Class III Inventories and historic structures same as Proposed Plan	Class III Inventories and historic structures same as Proposed Plan	Class III Inventories and historic structures same as Proposed Plan	Class III Inventories and historic structures same as Proposed Plan
SUBSISTENCE					
No subsistence restriction	No subsistence restriction	Same as A	Same as A	Potential subsistence issue dependent on degree and location of development. No restriction anticipated.	Same as A
SOCIAL AND ECONOMIC CONDITIONS					
40% of area open to development opportunities, but leasing restricted; cost of operating will double	Area closed to economic development except for existing rights	20% of area open to economic development but restricted	56% of area open to economic development	85% of area open to development	70% of area open to development

RECREATION MANAGEMENT

Under all of the alternatives and under the proposed plan, the recreation management program would attempt to provide for a wide range of recreational opportunities in either a primitive or a semi-primitive motorized setting. The proportion of the area managed for primitive values varies with each alternative. In all cases, Beaver Creek National Wild River and its associated corridor would be managed in compliance with the existing river management plan. Limited facilities would be developed outside the river corridor to enable the public to enjoy the area. Visitor use management, including monitoring use, compliance, visitor safety, maps, brochures, and installation signs would be implemented in varying degrees in all alternatives. Areas identified as primitive management areas would be managed to protect the wilderness characteristics of the area. Areas identified as semi-primitive motorized would be managed to permit multiple use of the resource values without impairing the recreational values identified for that area. The various types of recreational facilities proposed in the alternatives are described below.

Trailhead Site

These sites would be one to three acres in size, would provide parking for between five and ten vehicles, and would include a trailhead sign/bulletin board describing the trail and giving other pertinent information about the area. In some areas limited picnic facilities would be provided.

Campgrounds

Campgrounds would generally be of limited size, designed to blend into the environment and constructed to BLM standards. They would include individual areas for vehicle parking, bulletin boards, vault toilets, trash receptacles, picnic tables, and sites for overnight camping. A recreation project plan would be prepared for each campground. It would include details on the number and layout of sites, signing requirements, and feasibility of providing drinking water. Such sites would encompass five to ten acres including roadway, campsites, and support facilities.

Picnic Areas

Picnic areas would be limited in size and number and would generally be developed in conjunction with scenic pullouts. They would include bulletin boards, vault toilets and trash receptacles and interpretive signs when appropriate. A recreation project plan would be prepared for each picnic site.

Shelters

Small public use shelters would be developed at selected locations along the trail system to be used both as emergency shelters and for overnight camping. They would be suitable for summer or winter use.

Trails

Both summer and winter trails have been proposed for construction. Most trail segments have been selected to protect the wilderness character of the area and would require only physical marking on the ground or minor vegetation clearing, rather than more traditional and expensive trail construction methods. The proposed trails are in addition to existing trails, which require only continued maintenance or minor signing.

WILDLIFE AND FISHERIES HABITAT MANAGEMENT

The wildlife habitat management program in all alternatives emphasizes habitat protection and habitat improvement. Identification and monitoring of fish and wildlife movements and use areas would be required to gain information to assess the effects of land use activities and determine habitat condition and trends. Monitoring information would also be used to formulate possible measures to avoid or mitigate possible adverse effects on wildlife from land use activities. Inventory and monitoring of fish populations and habitat would be performed in all alternatives. The wildlife habitat program would be implemented in cooperation with the Alaska Department of Fish and Game and the U.S. Fish and Wildlife Service Endangered Species Office.

Habitat protection in the WMNRA would emphasize protection of crucial habitats. Crucial habitats are wildlife use areas which are necessary for perpetuation of the species or population and which provide an essential element of the life cycle for that species or population. Crucial habitats for wildlife in the WMNRA are listed in Table 9-1.

Mitigating measures to avoid or minimize possible adverse effects, within the constraints of the Surface Management Regulations (43 CFR 3809), would be developed through the environmental assessment (NEPA) process. Three forms of mitigation are analyzed within the alternatives of this EIS. (1) Restriction or alteration of timing, location, and extent of a proposed land use activity may be required to avoid or minimize adverse effects. Crucial habitats and use periods associated with surface use restrictions or aerial limitations that may be required are shown in Table 9-1. The specific crucial habitats to be protected vary by alternative. (2) Some alternatives designate Special Management Areas. These are areas where crucial habitats occur for one or more priority species of wildlife. Areas designated as SMAs have high value to the maintenance of populations and habitat use opportunities for selected priority species, particularly caribou. Emphasis on habitat protection in SMAs will require proposals for any land-disturbing use within those areas, to include a mitigation plan that describes discrete phases and actions of the proposed activity. (3) Other crucial habitats are withdrawn from mineral entry. This is the strongest of the measures available and is used only when other forms of mitigation are felt to be inadequate. Development of measures to avoid or mitigate possible adverse effects of the proposed land use would be cooperatively developed with ADF&G. The mitigation plans would be made available to ADF&G to ensure compatibility with their management goals and objectives.

Habitat improvement for moose and other species will occur in all alternatives through implementation of the Alaska Interagency Fire Management Plan: Upper Yukon-Tanana Planning Unit (Map 1-1). Additionally, prescribed burns and mechanical treatment of riparian willow stands may be used to reestablish or improve habitat in some alternatives.

Management practices for the peregrine falcon, an endangered species, would include the protection measures recommended by the Peregrine Falcon Recovery Plan (U.S. FWS, 1982, Appendix E), and implementation of monitoring activities to obtain information for impact assessment.

The intensity of management to be applied in the wildlife habitat program varies from alternative to alternative. Specifically, intensive management for selected priority species includes the following actions.

1. Implementation of detailed, high level inventory, monitoring and studies to gather information for input into specific land management decisions.

2. Involvement and input of detailed information into the environmental assessment (NEPA) and surface protection (43 CFR 3809) processes to identify, mitigate or avoid negative impacts to priority species and habitats.

Limited Management for selected species would include the following actions.

1. Implementation of general inventory and monitoring efforts as a support action for input into land management decisions.

2. Case by case involvement and input into the environmental assessment (NEPA) and surface protection (43 CFR 3809) processes to identify, mitigate, or alleviate impacts when possible.

MINERALS MANAGEMENT

This EIS addresses the issue of whether or not a Mineral Leasing Program for both locatable and leasable minerals should be implemented, and the question of potential leasing program locations. A general description of the exploration activities that are likely to occur in the WMNRA follows. Site-specific mineral developments will require specific authorization which, in turn, will require compliance with NEPA.

Exploration Activities for Placer and Lode Deposits

Exploration or prospecting for placer or lode deposits can be accomplished in a number of ways. Initially, an area with potential for mineral deposits is identified by looking for favorable geology. Such an area would have the correct source rocks and, for placer minerals, some method to remove, transport, and concentrate the minerals. Next, the area is reconnoitered by using geophysical or geochemical prospecting techniques to identify variations from the normal earth's crust such as

magnetic variations, degree of resistivity, gravity or radioactivity or subsurface structural characteristics. Instruments to measure these variations can be carried on foot or can be airborne, using either helicopter or fixed-wing aircraft. Geochemical prospecting requires hand sampling of rock and sediment. Mapping of this data involves little or no surface disturbance. Temporary field camps would probably be used to house workers doing the field work during the summer months.

Pre-Development Sampling

Before development of a mineral deposit will occur, a company or miner will collect field samples. In a typical placer operation, many "pan" samples are collected from the creeks. Where panning or geochemical sampling indicates promising areas, further testing of the placer deposit can be accomplished by digging sample holes or trenches. This may be done by hand or with earthmoving equipment such as a backhoe. Holes are normally dug perpendicular to the course of a channel, across the "pay zone." Placer sampling may also be done by means of a churn or resonating drill.

Lode sampling begins with a geologic mapping effort. Rock samples and pan concentrates will be taken on a regular grid interval. These samples undergo laboratory testing to determine mineral content. Mineral concentrations above normal indicate the areas that require further exploration. A rotary drill would then be used for further sampling. Drills can be moved from one location to another by mounting on tractor-pulled skids or on all-terrain vehicles, or by lifting them in and out of difficult access areas by helicopter. Sampling or drilling is usually done in a grid pattern to establish the quality and quantity of the deposit. After it is determined that the deposit can be developed economically using sound mining practices, mining operations can begin.

Placer Mining Operations

After the initial delineation of a placer deposit, the miner has many options for methods of mining the material. A typical placer operation will employ eight to ten persons and disturb about five acres per year. The operation is conducted with at least two bulldozers (D-6 through D-9 size), a sluice box, and sometimes a backhoe and front-end loader. One bulldozer is used to clear overburden and vegetation and to push placer bearing gravels into the sluicebox for processing. The gravels are commonly cut from a face nearby, but may be excavated from the creek channel itself. Material is run across a screen to remove the large rocks before being deposited into the sluice which can be 18" to 48" wide and up to 75 feet in length. Water for the sluice is either diverted from the stream and moved to the sluice box in a ditch or pipe system by gravity or pumped by a motorized pump.

During sluicing operations, the outwash of sands and silts are deposited in settling ponds to remove settleable solids from the water. The second bulldozer moves material from the end of the sluice and may stockpile or

level the tailing areas on the claims that have already been mined. In an operation of this size, 500 to 1,000 cubic yards of material can be moved each day. Ten to 30 cubic feet per second of water may be used in this operation. However, these figures vary considerably with the many different methods of mining and with the size of the operation. Water used is sometimes recycled during mining operations.

Settling ponds alone do not completely remove all settleable solids, and, because of fine clays and silts, do not remove the turbidity from the water. Turbid water can be visible miles downstream from mining operations. Techniques to mitigate turbidity such as recycling, floculants, and complex processing plants have been introduced in recent years. These techniques have not proven to be cost effective.

Operations may continue in the same creek or area for many years depending upon mineral occurrence, economic and other factors; and an area may be remined several times. When an area has been mined out, tailing piles should be leveled and the area recontoured. The ground is usually left to revegetate naturally. Settling ponds should be breached and recontoured.

Most placer mining operations in Alaska are of about four months duration each year. Additional time is customarily spent at the mine site to clear overburden, maintain and repair equipment, set up camp, complete exploration drilling programs or similar exploration and/or development work. Support facilities may include a bunkhouse and/or cookhouse, workshop, and storage area for equipment, and sometimes an airstrip for access. Transportation into the camp and mining operations is usually over trails or roads suitable for four-wheel drive or all-terrain vehicles.

Lode Deposit Operations

The economics of scale and large mechanized equipment allow low grade ore bodies to be mined more economically as an open pit. The more extensive the deposit, the wider and deeper the pit will become. Cost increases dramatically with depth. Large tonnages are mined daily. Up to 10,000 tons per day could be expected. An open pit might encompass 300 to 600 acres with tailings and overburden covering another 400 to 800 acres. Although the overburden spoils can be revegetated, the pit of a large operation is normally lost to other uses.

A more likely scenario would be small- to medium-scale underground mining. These operations employ from a dozen to 100 people and involve sinking a shaft into, or adjacent to, the vein deposit where the rock types and mineral deposition would dictate ore extraction. Support facilities include an access road, a processing plant, shop, bunkhouse/cookhouse and administrative facilities. A tailing disposal area is required. Typically, these operations mine 50 to 100 tons of ore per day and cover approximately 60 acres. A plan of operation must be submitted for all such operations. An Environmental Assessment must be completed before a plan can be approved.

Mineral Assessment for Leasable Minerals

The limited geologic information available for the White Mountains National Recreation Area indicates that the area has virtually no potential for economic accumulations of oil and gas. The sedimentary rocks in the northern half of the WMNRA have deposits of copper, lead, and zinc mineralization that show that these rocks have been hydrothermally altered. Cretaceous-Jurassic aged intrusives in the White Mountains and other mountainous areas indicate that the area was subjected to high temperatures. The high temperatures associated with the hydrothermal alteration and igneous intrusions in all probability cooked any organics beyond the petroleum producing stage.

Oil and gas leasing will not be permitted in Alternatives A or B. Leasing will be permitted in Alternatives C, D, E, and the Proposed Plan. The potential for oil and gas development, while remote, does exist. Therefore, a development scenario is presented in Appendix C.

CULTURAL AND PALEONTOLOGICAL RESOURCE MANAGEMENT

Although the minor inventory work which has been done in the WMNRA has not identified any significant cultural or paleontological resources, the area lies in a region which may have been used by man as early as 20,000 years ago. This conclusion is based on sites found elsewhere in Alaska and on the discovery of Pleistocene mammal bones eroded from bluffs and overburden during mining operations.

Ethnographic and oral history work indicates that the Kutchin Athabaskan people hunted moose, Dall sheep, and caribou along Beaver Creek and in the White Mountains in the past.

In addition, early mining, prospecting, and trapping activities have taken place since the turn of the century at such locations as Ophir, Nome, Wickersham, Victoria, and Beaver Creeks. Historic cabins, artifacts, and trails are cultural resources which would provide evidence of the country's history.

Federal legislation and regulations mandate that BLM conduct site-specific (Class III) inventories prior to any surface-disturbing activity. This allows for the identification and mitigation of adverse effects to sites which may be eligible for the National Register of Historic Places. Surface-disturbing activities include mining operations, development of roads, trails, and recreational facilities, and some types of ORV use.

A literature search (Class I Inventory) has provided the information on past use of the WMNRA. This work was completed prior to the undertaking of a Class II or field sampling inventory in the Beaver Creek National Wild River corridor and has yielded information indicating man's use of the WMNRA.

SUBSISTENCE

With the passage of the Alaska National Interest Lands Conservation Act on December 2, 1980, BLM was mandated to carry out a specific process whereby subsistence uses and needs of rural residents would be considered in federal land use decisions in Alaska. The law is quoted below:

> Sec. 810.(a) In determining whether to withdraw, reserve, lease or otherwise permit the use, occupancy, or disposition of public lands under any provisions of law authorizing such actions, the head of the Federal agency having primary jurisdiction over such lands or his designee shall evaluate the effect of such use, occupancy, or disposition on subsistence uses and needs, the availability of other lands for the purposes sought to be achieved, and other alternatives which would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes. No such withdrawal, reservation, lease, permit, or other use, occupancy or disposition of such lands which would significantly restrict subsistence uses shall be effected until the head of such federal agency:
>
> (1) gives notice to the appropriate State agency and the appropriate local committees and regional councils established pursuant to Section 805;
>
> (2) gives notice of, and holds, a hearing in the vicinity of the area involved; and
>
> (3) determines that (A) such a significant restriction of subsistence uses is necessary, consistent with sound management principles for the utilization of the public lands, (B) the proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition, and (C) reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions.

Of note in Section 810, is the requirement for an evaluation of the effect of a proposed action and then a conclusion about its likelihood for causing a "significant restriction on subsistence uses."

This mandated evaluation is done on a case by case basis for <u>all</u> proposed actions. It is an attempt to decide the likely amount or degree of reduction in harvestable resources or their availability or how much limitation on access can occur before the level of significant restriction is reached. The determination of "significant restriction" will be made on a reasonable basis, to be decided in light of the total subsistence lands and resources that are available to individuals in surrounding areas living a subsistence lifestyle. In this regard, the problem of "cumulative impacts" from previously permitted actions or new circumstances affecting subsistence users can be weighed into the Section 810 process.

Alternatives

INTRODUCTION

Each alternative considered in detail represents a comprehensive plan for managing all land and resources in the White Mountains National Recreation Area. However, what differentiates one alternative from another is the way each of the six principal issues would be resolved if that alternative were selected for implementation. Thus, selection of the preferred alternative was based largely on the effects of the alternative in resolving issues.

The Draft Plan and Environmental Statement, published in January 1984, set forth Alternative E as the preferred alternative. Alternative E is summarized in this Final EIS, but is no longer the preferred alternative. The Proposed Plan (described in detail in Part II of this document) is now selected as the agency's Preferred Alternative and establishes management direction for resolving the primary issues as summarized below.

PROPOSED PLAN

WHITE MOUNTAINS NATIONAL RECREATION AREA

Management Units	Acreage	Percentage
Primitive	472,000	47.2%
Semi-Primitive	445,000	44.5%
River Corridor	70,000	7.0%
Research Natural Areas	13,000	1.3%
TOTAL	1,000,000	
Open to lode leasing	445,000	44.5%
Open to placer leasing	-0-	-0-

Recreation Management

The river corridor and other areas designated as primitive are shown on the Proposed Plan Map in the map pocket, and will be managed to protect primitive values. This will be accomplished through limited access and development of facilities. Existing trails and recreation facilities would be maintained. New campgrounds, shelter cabins, and trails would be developed as shown on Map 1-2. A small area suitable for gold panning would be acquired or retained and managed for recreational mining. Access would be improved by developing new trail networks, a new access road in the vicinity of lower Nome Creek and a primitive airstrip in the vicinity of Victoria Creek. Rights-of-way for recreational access across State lands would be acquired as necessary.

Wildlife and Fish Habitat Management

WILDLIFE HABITATS. Wildlife habitats would be managed to increase wildlife populations and habitats to facilitate achievement of ADF&G objectives. Emphasis would be placed on maintenance of populations and habitats in areas of overlapping use where mineral development occurs. Priority species for intensive management would be caribou, Dall sheep, and the peregrine falcon. Habitat improvement actions for moose and other species would occur through prescription fire and implementation of the Alaska Interagency Fire Management Plan: Upper Yukon-Tanana Planning Unit. Detailed, high-level inventory and monitoring of the priority species would facilitate intensive management actions. No special management area would be established in the Proposed Plan. Areas closed to mineral entry for habitat protection purposes include portions of present and historical caribou calving and movement routes and Dall sheep crucial habitats in the Mount Schwatka, Victoria Mountain, Cache Mountain and Lime Peak areas. Additionally, portions of Dall sheep crucial habitats in the Quartz Creek and Mount Prindle areas would be withdrawn from mineral entry. Raptor habitat along Beaver Creek is closed to mineral entry as a result of the Beaver Creek wild river designation.

FISH HABITAT. Fish habitat would be managed to maintain and/or enhance fish populations, especially arctic grayling populations, for recreational enjoyment. Management actions would include stream rehabilitation and application of mitigating measures to offset potential negative impacts of development on fish habitat or populations. As many as seven miles of Nome Creek may be rehabilitated. Fish populations and habitat would be monitored on a regular basis to determine if goals are being met.

The Authorized Officer must be contacted prior to any exploration activities. All lands would be open to exploration. Exploration would be subject to all off-road vehicle limitations as well as those measures necessary to protect the primitive and semi-primitive values for which the area is being managed.

Coal or geothermal leasing is not permitted within a National Recreation Area (43 CFR 3201.1-6 and 43 CFR 3400.2).

There would be no leasing of placer deposits within the WMNRA.

Approximately 445,000 acres would be open to leasing of non-energy minerals in accordance with appropriate leasing regulations (43 CFR 3500).

Water Resources Management

The Bureau would cooperate closely with the Alaska Department of Environmental Conservation and the U.S. Environmental Protection Agency

in the enforcement of State and federal water pollution laws. All mining operations would be required to keep water-borne effluent within present ADEC and EPA limitations, and reclamation of disturbed ground would be required to prevent stream sedimentation through erosion. These requirements would be enforced under the Surface Management Regulations (43 CFR 3809).

The Bureau may require more stringent water quality standards for effluent discharge if it is deemed necessary to protect the values of the wild river. This is explained more fully in the Proposed Plan.

An instream flow study on Beaver Creek would be conducted to quantify the reserved water right needed to protect the values for which the wild river was established.

BLM would respond to requests for floodplain determinations, water supply sources, and water projects related to proposed developments.

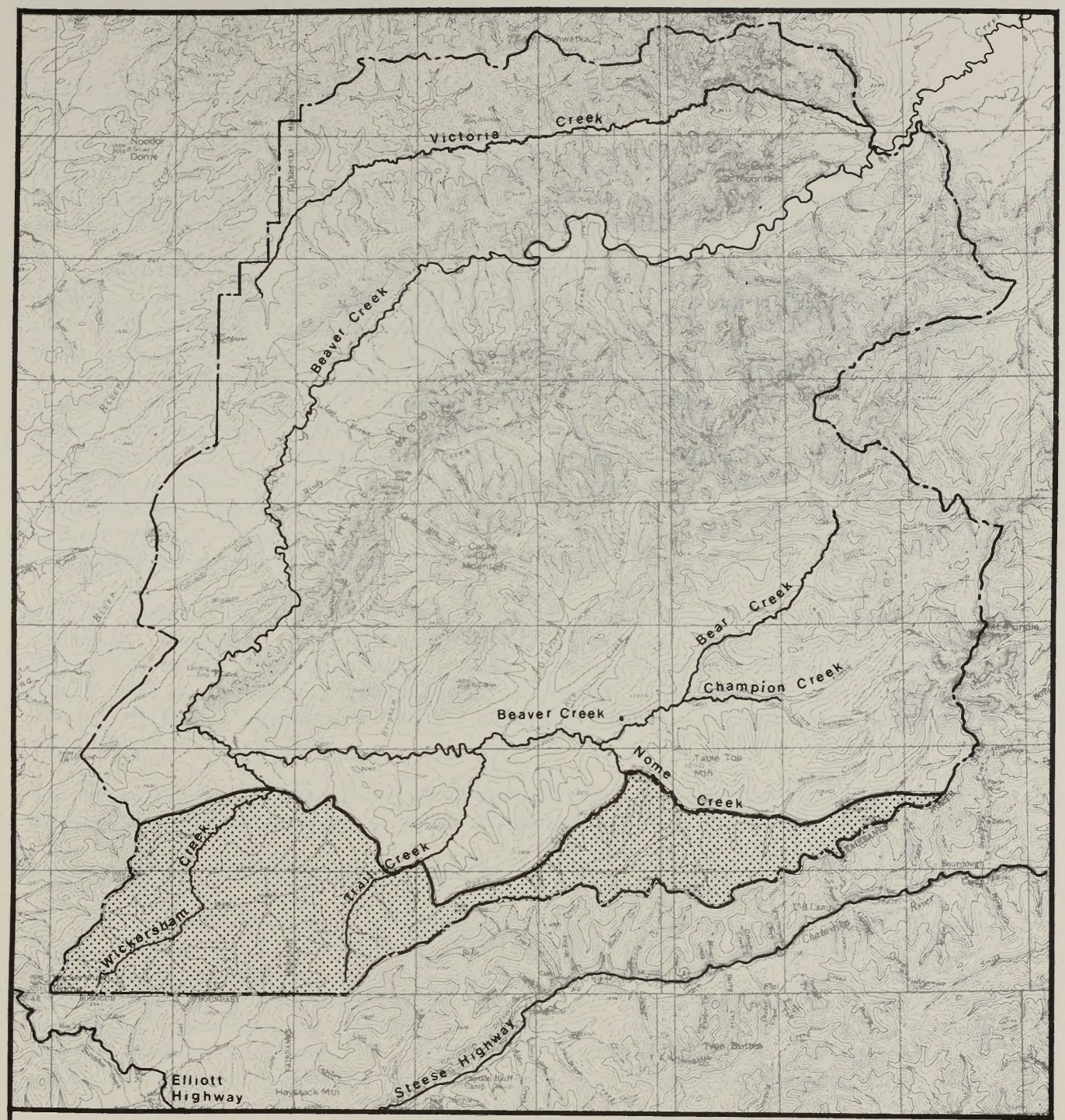
Fire Management

Fire would be managed according to the standards established in the Alaska Interagency Fire Management Plan: Upper Yukon-Tanana Planning Area. Fire management would enhance primitive and semi-primitive recreational values by maintaining vegetative and visual diversity and by increasing wildlife habitat quality. Fire management options are described in Appendix A. The areas in which particular options would be applied are shown on Map 1-1. In addition to the options shown on Map 1-1, any inhabited cabins would be designated as Critical Protection Sites and would receive first priority for fire suppression. Other cabins, structures, and historical cabins have been designated to receive protection.

Fuels management and other strategies will be used to reduce the wildfire hazard to structures which require fire protection.

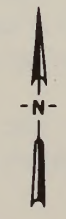
The level of fire suppression applied would be that necessary to protect life, property, and historical cabins and to prevent escape of fire to areas requiring a higher level of fire suppression. There are no areas within the WMNRA where fire suppression is required to protect natural resource values. If increasing amounts of recreational or other uses mandate an increased level of fire protection, the level of suppression for any area can be changed. The Fire Management Plan is subject to annual review and modification.

Prescribed burning would be used to break up large areas of continuous fuels, improve wildlife habitat, and increase vegetative diversity. Prior to any prescribed burn, the area would be thoroughly investigated to identify and inhabited or historical cabins, other structures, or other critical protection sites, and appropriate measures would be taken to protect them from fire.



MAP 1-1

FIRE MANAGEMENT
PROPOSED PLAN



Full protection area
Modified action area
Limited action area

5 0 5 10 15 20 25 MILES

Off-Road Vehicles and Aircraft

Areas where a primitive ROS classification is to be maintained would be closed to ORVs, except for snowmachines. Any other use of vehicles would require special authorization, which would be granted only when necessary to provide access to inholdings or for other legitimate purposes.

In all other areas, the use of any vehicle of less than 1,500 pounds GVW would be unrestricted. The use of vehicles of greater than 1,500 pounds GVW off a valid right-of-way would be allowed by authorization only. Such authorization would be given only when necessary to provide access to inholdings or for other purposes determined as justified based on analysis of the need and compatibility with the RMP. Approval would be given subject to conditions designed to minimize the impact to the environment or to other land uses. Crossing the wild river corridor would be allowed only if there were no economically feasible and prudent alternative. Authorization for vehicle use could be granted under a mining plan of operation (43 CFR 3809), through a right-of-way or permit (43 CFR 2800 or 43 CFR 2920), or by other appropriate means.

An ORV monitoring program would be developed and implemented that would document existing trails and their condition, and document newly-disturbed areas of cross-country use. Information gained would provide a basis for determining rehabilitation needs, monitoring recovery, and establishing a threshold that indicates when impacts are becoming excessive.

Aircraft use would generally be unrestricted. A location for a primitive airstrip would be designated near the mouth of Victoria Creek.

Rights-of-Way and Other Realty Actions

In order to prevent proliferation of rights-of-way, all future rights-of-way would, as far as possible, be located within one of these two corridors. If it were to become necessary for a right-of-way to extend beyond a corridor, existing trails would be followed whenever possible. Several users might be required to use the same right-of-way and to jointly maintain it. Holders of rights-of-way for roads or trails would be required to allow public access for recreation unless there was a compelling reason to deny such access.

Engineering studies would be conducted for route selections within the transportation corridors in order to identify road and trail locations, river crossings, and geologic hazards prior to any construction.

No lands within the WMNRA would be exchanged or otherwise disposed of. Lands outside of the WMNRA in the Wickersham Dome area, identified on Map 1-5, would be retained in federal ownership for recreational purposes.

Other realty actions could be permitted if compatible with the land uses designated in this plan.

Visual Resource Management

Scenic quality would be maintained by adhering to Visual Resource Management objectives while implementing a program of visual assessment of all surface-disturbing activities, i.e., new access trails, mining activities, ORV use, support structures and developments, and recreational facilities. Specific areas with outstanding scenic qualities of special concern are the high ridge complex within the Primitive Management Unit and the river viewshed. The river corridor would be managed for VRM Class I. The primitive area and the river viewshed would be managed for VRM Class II. All other areas would be managed for VRM Class III.

Cultural and Paleontological Resource Management

Future cultural resource work would emphasize the river bluff areas for paleontological and cultural significance. A Class III intensive inventory would be accomplished for any ground-disturbing project. Historic structures would be evaluated for rehabilitation and visitor use. All sites would be evaluated for possible inclusion in the National Register of Historic Places. Some sites may be conserved for future scientific excavation, particularly any found in or adjacent to the Research Natural Areas.

Research Natural Areas and Areas of Critical Environmental Concern

Research Natural Areas would be designated at Mount Prindle, Serpentine Slide, and Limestone Jags. No ACECs would be designated.

Forest Management

Forest products would be reserved for local use only. No commercial timber harvest would be permitted.

Subsistence

The policy for complying with Section 810 of the Alaska National Interest Lands Conservation Act (PL 96-487) has been formulated and approved by the Alaska State Director of the Bureau of Land Management and by the Secretary of the Interior. A subsistence evaluation was developed and is included in Chapter III of this document. Any actions that may occur in the WMNRA would be subject to a subsistence evaluation in compliance with Bureau policy.

Sensitive and Rare Plants

Inventories for sensitive and rare plants would be conducted as required for clearances for proposed surface disturbing activities. Sites would be protected by modifying proposed actions which threaten sensitive or rare plant habitats or by denying those actions which cannot be modified. If actions cannot be modified or denied, plant material salvage would be attempted.

DESCRIPTION OF ALTERNATIVE A

Summary

This is the "no action" alternative.

The management goal is to maintain the present condition of most resources without making major changes in user restrictions or management techniques.

Present levels and systems of resource management would be continued. This means a low level of management for most resources. Present trends would generally continue.

The BLM would respond to requests for various actions but would not usually initiate actions. Activities which are permitted now would continue to be permitted, and those which are prohibited now would continue to be prohibited. However, recreation would be regarded as the primary use of the area and would receive special consideration when actions which may affect recreation values are proposed.

Recreation Management

Recreation management would be aimed at maintaining existing Recreation Opportunity Spectrum (ROS) classifications, which are almost entirely primitive and semi-primitive non-motorized. (See Table 1-2). The ROS system is explained in Chapter II. Existing trails and facilities would be maintained. New facilities could be developed if they did not change the existing ROS classification. Several new hiking trails would be constructed. Some of these facilities would be outside the WMNRA; however, they would facilitate recreational use within the Area by providing access or serving as "jump-off points." Vehicle access is provided by the existing U.S. Creek Road. Facility locations are shown on Map 1-2.

Non-federal lands, or interests in lands, within the river corridor would be acquired whenever possible. Rights-of-way for recreational access across State lands would be acquired where necessary. Federal lands adjacent to the WMNRA near Wickersham Dome would be retained in federal ownership and managed for recreation, as shown on Map 1-5.

Recreational use would be managed through facility location and design, informational signs and brochures, and the existing low level of visitor services.

RECREATION CLASSIFICATIONS IN ALTERNATIVE A

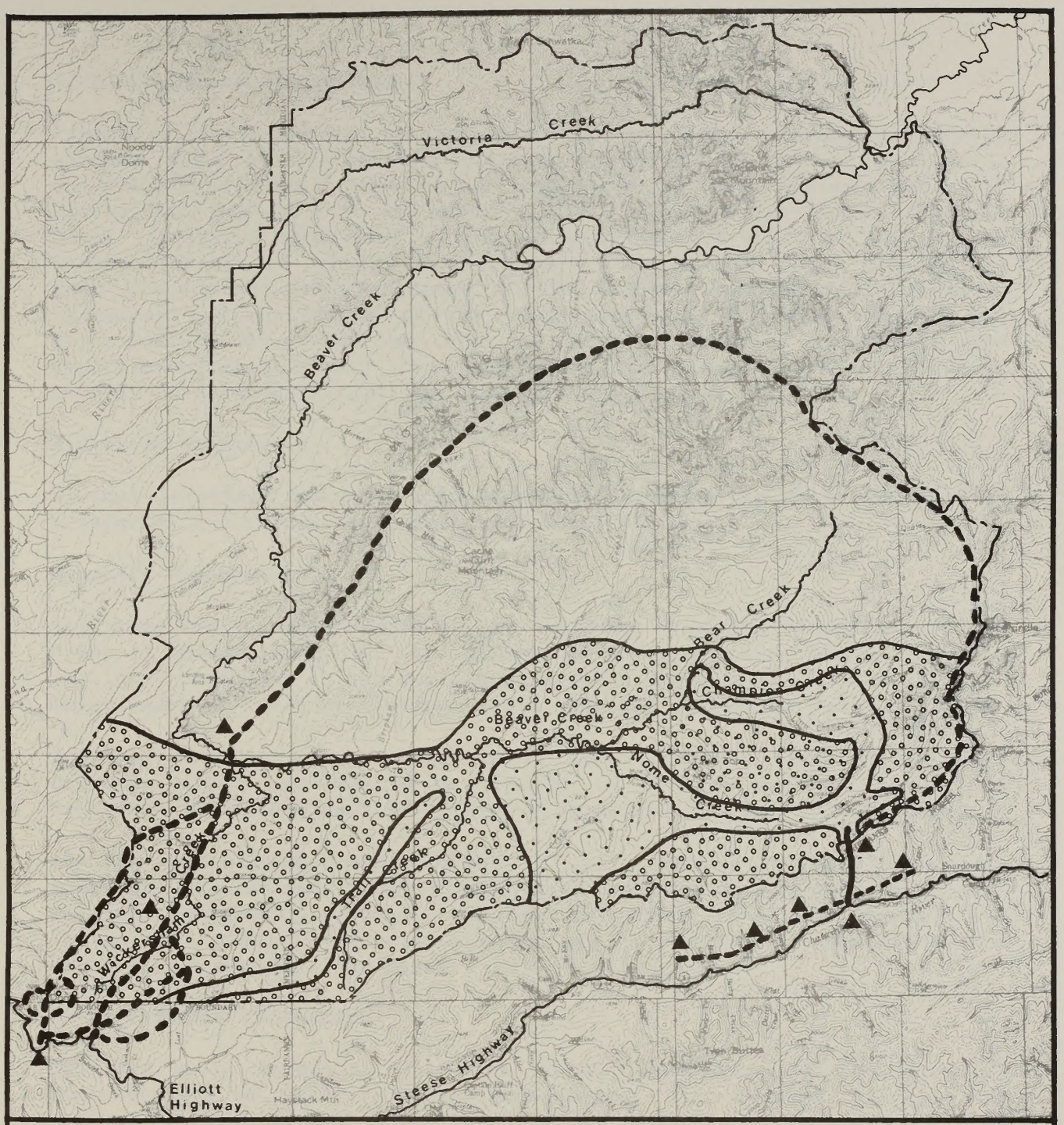
Table 1-2

ROS Class	Approximate Acreage	% of Total Area
Primitive	742,530	74%
Semi-Primitive Nonmotorized	199,050	20%
Semi-Primitive Motorized	58,420	6%

RECREATION FACILITIES IN ALTERNATIVE A

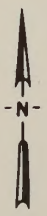
Table 1-3

Facility	Existing	Proposed	Totals
Campgrounds	1	-0-	1
Interpretive Sites	-0-	3	3
Trailheads	2	6	8
Hiking Trails	39 miles	153 miles	192 miles
Shelters	2	-0-	2



MAP 1-2

RECREATION
ALTERNATIVE A



- Primitive
- Semi-primitive non-motorized
- Semi-primitive motorized
- Recreation facilities
- Trail
- Vehicle access route

5 0 5 10 15 20 25 MILES

Wildlife Habitat Management

Present wildlife habitat conditions and trends would continue. Priority species would be caribou, Dall sheep, moose and the peregrine falcon. Habitat improvement would occur indirectly through implementation of Alaska Interagency Fire Management Plan: Upper Yukon-Tanana PLanning Unit. Intensive management of the priority species would mitigate major adverse impacts to crucial habitats on a case by case basis through the NEPA process and implementation of the Surface Management Regulations. Inventory and monitoring of the distribution of priority species and their use areas would be done to provide general input into the decision-making process. The entire area is closed to mineral entry, subject to valid existing rights, as specified by ANILCA.

Fisheries Management

Minimal inventory and monitoring would be performed to determine species occurrence and trends in general habitat condition.

Minerals Management

All lands would remain closed to new location of mining claims and to all types of mineral leasing. Activities on existing mining claims would be regulated according to the Surface Management Regulations (43 CFR 3809). Enforcement of these regulations would continue at current levels.

Requests for the extraction of sand, gravel, stone, or other saleable minerals would continue to be handled on a case by case basis, in accordance with the Mineral Material Disposal Regulations (43 CFR 3600).

Mineral exploration could continue on all lands according to current rules and regulations. Exploration which involves no surface disturbance requires no advance approval. Surface-disturbing activities require the filing of a plan of operations, which may be approved by the Authorized Officer on a case by case basis.

Water Resource Management

The BLM would cooperate with the Alaska Department of Environmental Conservation in water quality management. The current practice of collecting data on both water quality and quantity would continue when trips are made to the Area.

An instream flow study on Beaver Creek would be conducted to quantify reserved water rights needed to protect the values for which the wild river was established. BLM would respond to requests for water supply sources and water projects related to proposed developments.

Fire Management

Fire management would be carried out according to one of the four options -- critical protection, full protection, modified action, and limited action -- described in the Alaska Interagency Fire Management Plan: Upper Yukon-Tanana Planning Unit. These options are described in Appendix A. The areas in which those options would be applied are shown on Map 1-3. These designations are based on the probability of a fire escaping from the WMNRA and on the need to protect life and property.

In addition to the options shown on Map 1-3, any inhabited cabins are designated as critical protection sites and would receive first priority for fire suppression. Other habitable cabins and historic cabins would also be designated for protection.

The Fire Management Plan would be reviewed annually. It would be modified to accommodate new information or changing land uses.

Off-Road Vehicles and Aircraft

Outside of the NWR corridor, use of off-road vehicles would remain unrestricted. Within the corridor, ORV use would be regulated by the river plan. ORV users who cause undue damage may be held liable.

Aircraft landings would be unrestricted.

Rights-of-Way and Other Realty Actions

Applications for new-use authorizations for pipelines, roads, material sites, communication sites, or any other uses would be considered on a case by case basis and, when appropriate, must comply with the approved river management plan for Beaver Creek NWR.

Visual Resource Management

Management would be aimed at maintaining present scenic quality, which is high. Protection would be provided by responding (through the NEPA process) to proposed actions which may threaten visual resources.

Disturbed areas (VRM Class V) within the NWR corridor would be rehabilitated if feasible. In other areas, rehabilitation would not generally be undertaken.

Cultural and Paleontological Resource Management

Class III inventories would be conducted as development demands. BLM would identify any sites of potential National Register significance and would allow for comment from the Advisory Council on Historic Preservation prior to any action which may impact such a site.

MAP 1-3

FIRE MANAGEMENT
ALTERNATIVE A

Modified action area
Limited action area

-N-

5 0 5 10 15 20 25 MILES

Research Natural Areas or Areas of Critical Environmental Concern

No Research Natural Areas or Areas of Critical Environmental Concern would be designated. Designations of RNAs or ACECs would be considered if proposed by the public or other agencies.

Forest Management

Applications for local use products would be considered on a case by case basis.

Subsistence

Subsistence use and subsistence resources would be protected by identifying and mitigating adverse impacts through the NEPA process and the enforcement of Surface Management Regulations (43 CFR 3809). Subsistence resources which frequent the WMNRA, but which are harvested outside of the Area, such as caribou, will receive the same consideration as subsistence resources harvested within the WMNRA.

Sensitive and Rare Plants

Habitats of sensitive or rare plants will be protected from activities which might alter or destroy them. Management would be aimed at making it unnecessary to list the plants as threatened or endangered under the provisions of the Endangered Species Act.

Inventories for sensitive and rare plants would be conducted as funds are available or as required for clearances for proposed surface-disturbing activities. Sites would be protected by modifying proposed actions which threaten sensitive or rare plant habitats or by denying those actions which cannot be modified. When actions cannot be modified or denied, plant material salvage will be attempted.

DESCRIPTION OF ALTERNATIVE B

Summary

Natural processes and environmental quality would generally be maintained or enhanced. This would require intensive management of most resources and activities. It would also require restrictions on some activities which are currently unrestricted and a stronger effort to enforce the Surface Management Regulations.

Recreation would be regarded as the primary use, and recreation management would be aimed at maintaining the predominantly primitive character of the area.

Recreation Management

Management would be aimed at maintaining ROS classifications similar to existing classifications, with a slight increase in non-motorized categories. Acreages within each class are shown in Table 1-4. Action

would be taken to prevent or eliminate activities which conflict with those classifications. Emphasis would be placed on non-motorized recreation.

Existing trails and facilities would be maintained. New facilities could be developed if they did not change the existing ROS classification as shown in Table 1-5. Facilities would also be provided where necessary for resource protection. Campgrounds, hiking trails, and picnic areas would be constructed at locations shown on Map 1-4.

Federal land adjacent to the WMNRA near Wickersham Dome would be retained in federal ownership and managed for recreation. Also, land exchanges would be proposed to acquire State lands with high recreational value, as shown on Map 1-5. Non-federal lands or interests in lands within the NWR corridor would be acquired whenever possible. Rights-of-way for recreational access across State lands would be acquired where necessary.

Recreation use would be managed through facility location and design and an increased level of visitor services, including signs, brochures, and field contacts.

RECREATION CLASSIFICATIONS IN ALTERNATIVE B

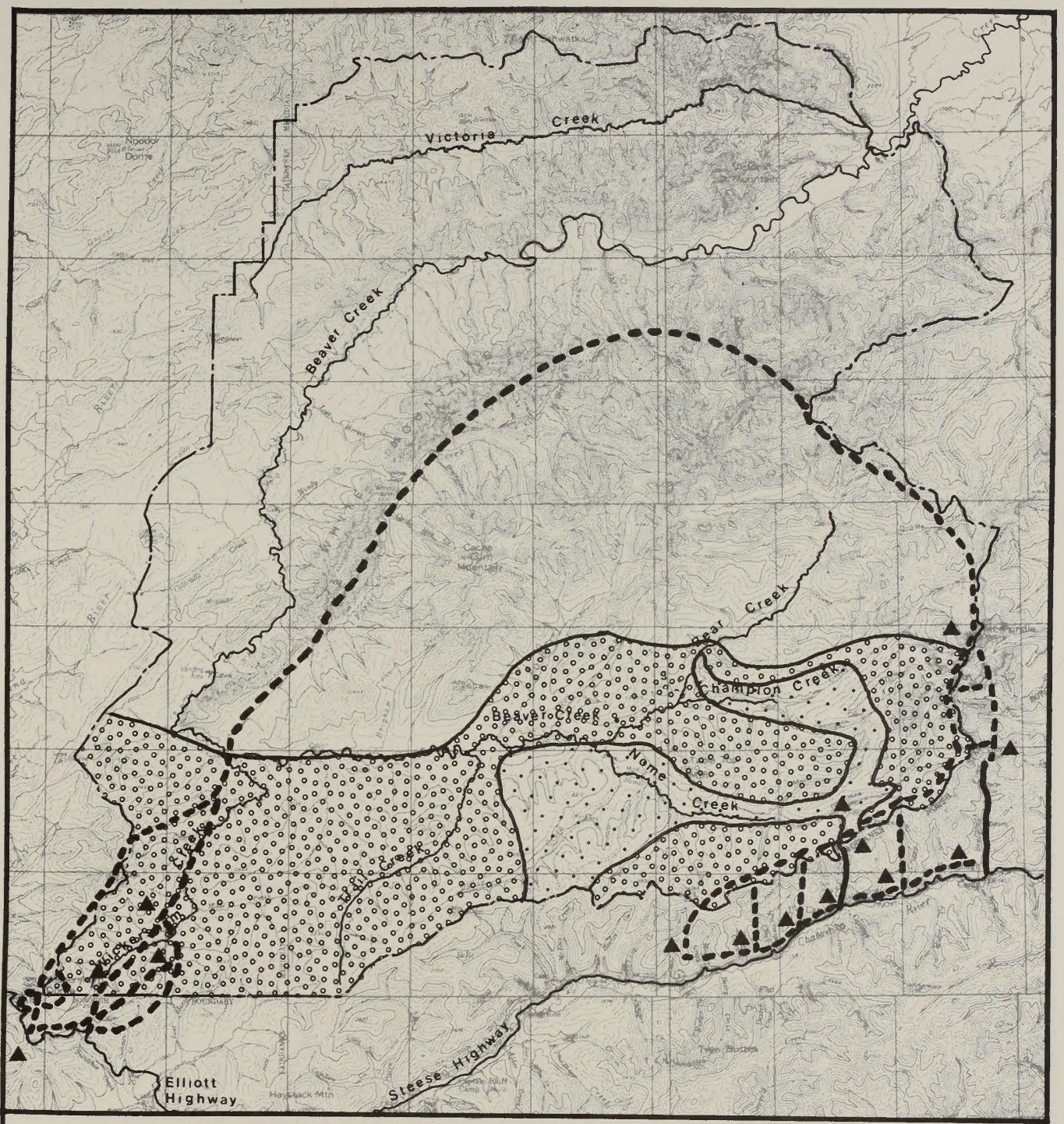
Table 1-4

ROS Class	Approximate Acreage	% of Total Area
Primitive	742,530	74%
Semi-Primitive Non-motorized	207,050	21%
Semi-Primitive Motorized	50,420	5%

RECREATION FACILITIES IN ALTERNATIVE B

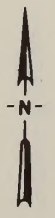
Table 1-5

Facility	Existing	Proposed	Totals
Campgrounds	1	1	2
Picnic Sites	-0-	3	3
Interpretive Sites	-0-	6	6
Trailheads	2	8	10
Hiking Trails	39 miles	187 miles	226 miles
Shelters	2	3	5



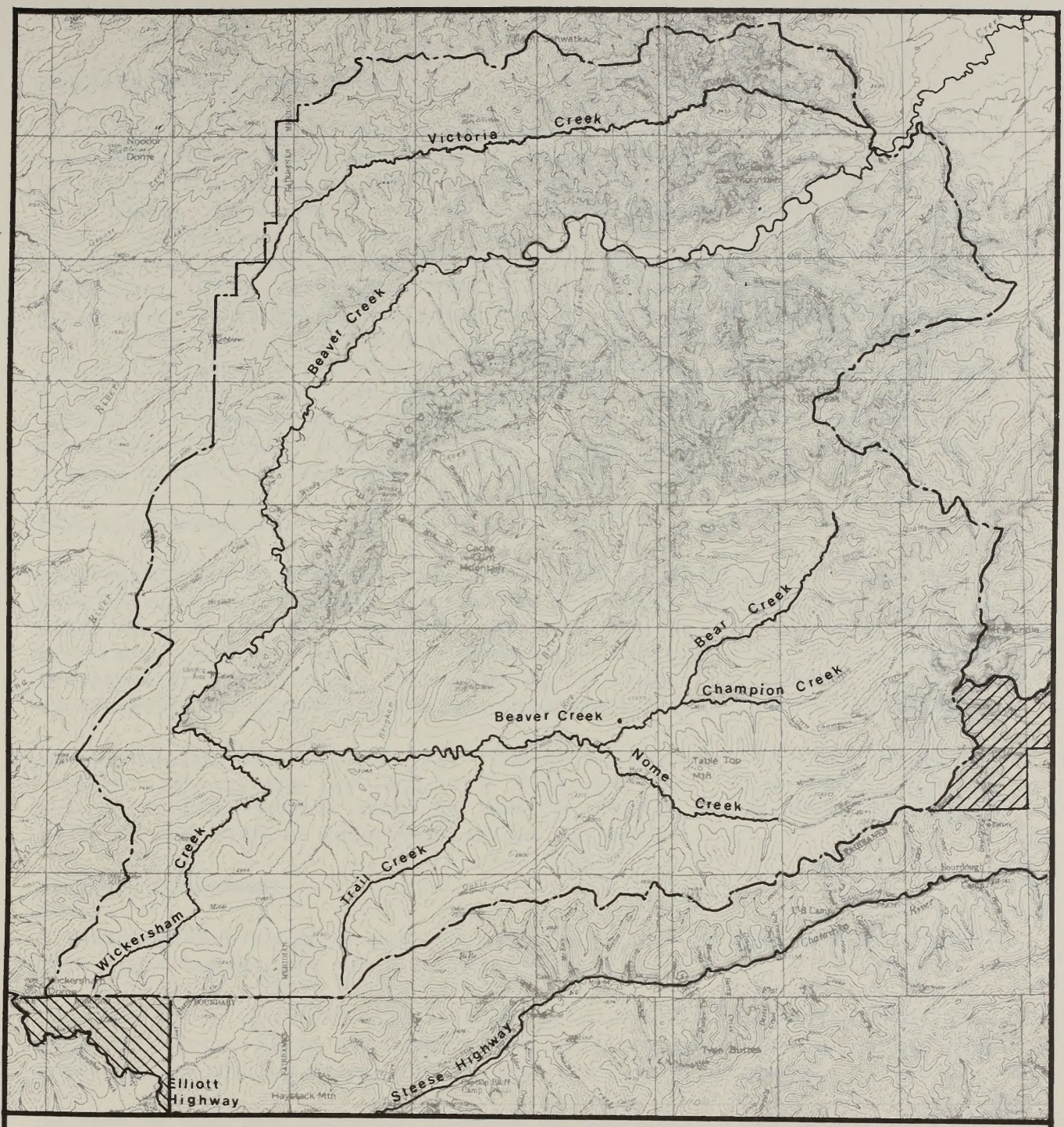
MAP 1-4

RECREATION
ALTERNATIVE B



- Primitive
- Semi-primitive non-motorized
- Semi-primitive motorized
- Recreation facilities
- Trail
- Vehicle access route

5 0 5 10 15 20 25 MILES



MAP 1-5

REALTY ACTIONS
ALTERNATIVES B, C, D, and E

Land to be acquired through exchange

Land to be retained in Federal ownership

N

5 0 5 10 15 20 25 MILES

Wildlife Habitat Management

The Wildlife Habitat Management program would emphasize intensive management to maintain or increase wildlife populations and habitat to facilitate achievment of ADF&G objectives. Priority species are caribou, Dall sheep, moose, peregrine falcon, other raptors, grizzly and black bear, furbearers, and small game. Habitat improvement would be accomplished through prescribed burns and implementation of the Alaska Interagency Fire Management Plan: Upper Yukon-Tanana Planning Unit. Management of the endangered peregrine falcon would emphasize maintenance and reestablishment of the nesting population and formal designation of critical habitat in all nesting and prey gathering areas. Detailed high level inventory and monitoring would be implemented to facilitate intensive management of priority species. No site-specific SMAs would be established. Areas withdrawn from mineral entry would include most crucial habitat and use areas.

Fisheries Management

Maintenance and enhancement of all fish habitat would be the objective of this alternative, although maintenance of crucial arctic grayling habitat would receive the most emphasis. Crucial habitat for grayling consists of those areas used for spawning, rearing, or overwintering. Consequently, a strong effort would be made to involve fisheries expertise in enforcement of Surface Management Regulations (43 CFR 3809).

Stream rehabilitation techniques could be employed at Nome Creek to restore the stream as suitable fish habitat. The BLM's Habitat Management Plan process would be used to accomplish the work. Inventory would be performed to determine crucial use areas.

Minerals Management

A strong effort would be made to enforce Surface Management Regulations. More field inspections would be made.

The BLM would initiate examinations on claims to determine compliance with all mining laws. Priorities for such actions would be established according to the importance of the land for federal programs.

Outside of the NWR corridor, holders of unperfected mining claims would be allowed to apply for a lease for those claims under the terms of Section 404 of PL 96-487. New regulations governing the leasing of formerly locatable minerals within the WMNRA would be put into effect. No lands other than existing claims would be open for leasing of locatable minerals.

All lands would remain closed to leasing of oil and gas, coal, or any other leasable minerals.

In accordance with Mineral Materials Disposal Regulations (43 CFR 3600), disposals of mineral materials would be made in support of other land use actions authorized by this plan. For example, materials could be used for construction of recreational facilities. Disposals could also be made for uses associated with valid existing rights if no feasible alternative existed.

All lands would be open to mineral exploration. All exploration activities would require a plan of operations, which would be subject to approval by the Authorized Officer.

Water Resource Management

Water Resource Management would be aimed at maintaining water quality levels no lower than the current Alaska Department of Environmental Conservation classification. This would generally require maintenance or improvement of existing water quality levels. The enforcement of Surface Management Regulations would be designed to achieve this objective.

A network of water resource monitoring stations would be established and visited on a regular basis.

An instream flow study would be conducted on Beaver Creek to quantify reserved water rights needed to protect the values for which the NWR was established. BLM would respond to requests for water supply sources and water projects related to proposed developments.

Fire Management

Suppression action would be taken on all fires until completion of the Alaska Interagency Fire Management Plan: Upper Yukon-Tanana Planning Unit. With the completion of the Plan, fire management would be carried out according to one of the four options described in Appendix A. The areas in which particular options would be applied are shown on Map 1-8.

Designations have been made with the objective of trying to approximate a natural fire regime. Suppression activities would be kept to the lowest level consistent with the need to protect life and property and prevent fires from escaping the WMNRA. Policy on inhabited cabins, historic cabins, and fire plan modifications would be the same as in Alternative A.

Prescribed burning would be used to improve wildlife habitat and to manage fuels. Fuels would be managed in the southern part of the WMNRA to reduce the probability of large, severe fires in that area. Other areas where prescribed burning could be used will be identified as more information becomes available.

Prior to any prescribed burn, the area would be thoroughly investigated to identify any inhabited cabins, historical sites, or other critical protection sites; and appropriate measures would be taken to protect these sites.

Fuels management and other strategies would be identified which would reduce the wildfire hazard to structures requiring fire protection.

Off-Road Vehicles and Aircraft

Management would be aimed at preventing erosion, adverse impacts to the predominantly primitive character of the area, or other resource degradation which may be caused by ORVs. Use of light vehicles would be largely unrestricted. Authorization could be granted for heavy vehicles to ensure access for miners, inholders, or others who may require special access. If such access routes must cross the Beaver Creek NWR corridor, the number of crossing points would be limited to as few as possible. Crossing points would be selected to minimize adverse impacts, and would be authorized only if there were no economically feasible and prudent alternative.

Use of vehicles of less than 1,500 pounds gross vehicle weight would be unrestricted. Operation of vehicles of greater than 1,500 pounds GVW off of a valid right-of-way would require approval of the Authorized Officer.

Aircraft use would generally be unrestricted, except for possible seasonal restrictions on certain wildlife use areas.

Rights-of-Way and Other Realty Actions

Generally, only those realty actions which promote land uses designated by this plan or are necessary to protect valid existing rights would be allowed. Other actions could be allowed if they were compatible with designated land uses or if there were no reasonable alternatives.

As transportation needs become more clearly identified, the Authorized Officer could exercise his/her authority to designate transportation corridors to eliminate proliferation of rights-of-way. Several users could be required to use the same road or trail and to jointly maintain it.

Rights-of-way across the Beaver Creek NWR corridor would be allowed if there is no economically feasible and prudent alternative, and the rights-of-way are in compliance with the approved river management plan. The number of crossing points would be kept to a minimum. Crossing points would be selected in consultation with the users and the Alaska Department of Transportation and Public Facilities. Locations would be based on environmental and engineering considerations, and economic feasibility.

Land exchanges would be proposed to acquire State lands outside of the present boundaries which have high recreational value. Federal lands outside the boundaries with high recreational value would be retained in federal ownership. These lands are identified on Map 1-5.

The Bureau would apply for rights-of-way across State lands to provide access to the WMNRA where necessary.

Visual Resource Management

Present scenic quality would generally be maintained. Disturbed areas would be rehabilitated if feasible. Scenic quality would be protected by identifying and mitigating adverse impacts of proposed actions.

Fire or vegetation manipulation for wildlife habitat improvement would not be considered adverse impacts.

Cultural and Paleontological Resource Management

Class III site-specific inventories will be conducted as development demands. Historic structures would be evaluated for recreational use.

Research Natural Areas and Areas of Critical Environmental Concern

Research Natural Areas would be designated at Serpentine Slide, Limestone Jags, and Mount Prindle. Descriptions and boundaries of these proposed Research Natural Areas can be found in Appendix B.

No surface-disturbing activities would be allowed within RNAs, except permitted research projects. The areas would be closed to off-road vehicles and camping to avoid disturbing research projects. Primitive campsites could be established outside the RNA boundaries and access could be improved in the form of developed trails, helispots, or airstrips. Hiking, hunting, and nature appreciation would be allowed. Developed trails could be constructed through the RNAs to reduce damage to research sites and increase public enjoyment.

All Research Natural areas would also be designated as Areas of Critical Environmental Concern.

Forest Management

Applications for local use of forest products would be considered on a case by case basis. Revegetation may be required if appropriate.

Subsistence

Subsistence would be protected by identifying and mitigating impacts through NEPA assessments and enforcement of Surface Management Regulations. Emphasis would be on the protection of existing subsistence resources, primarily furbearers, caribou, and other game animals.

Sensitive and Rare Plants

Inventories of all likely sensitive and rare plant habitats and studies of the plants found would be undertaken to facilitate determination of their status under the Endangered Species Act. Information gained would help prevent alteration or destruction of habitats which could lead to listing of the plant as threatened or endangered under the ESA.

Sites would be protected by modifying proposed actions which threaten habitats or by denying those actions which cannot be modified. When actions cannot be modified or denied, attempts will be made to salvage plant materials, especially ripe seed. In addition to salvage actions, attempts would be made to establish colonies in likely habitats where practicable.

DESCRIPTION OF ALTERNATIVE C

Summary

A mix of resource protection and resource development would be provided, based on identified needs and resource capabilities. Some resources, particularly wildlife habitat, would receive more intensive management. Recreation would be regarded as the primary use. Recreation management would provide for a variety of recreational opportunities, including both motorized and non-motorized recreation.

Recreation Management

Within the wild river corridor and other designated areas shown on Map 1-6, the objective of management would be to maintain primitive ROS classifications. The area to be managed for primitive values includes the Beaver Creek viewshed, proposed Research Natural Areas, and areas of high scenic quality in the White Mountains. In other areas, management would allow motorized ROS classifications to develop. Table 1-6 shows approximate acreage in each class.

Existing trails and facilities would be maintained. New campgrounds and trails would be constructed. Cabins suitable for summer or winter use by small parties would be constructed to provide shelter for hunters, hikers, and other recreationists. Facility locations are shown on Map 1-6.

A small area suitable for gold panning would be acquired or retained and managed for recreational mining.

Access would be improved by encouraging construction of improved roads in some locations. Construction may be accomplished by working with the State of Alaska or with private development interests, such as miners.

Land exchanges would be proposed to acquire State lands with high recreational value. The Wickersham Dome area would be retained in federal ownership. These areas are shown on Map 1-5. Non-federal lands or interests in lands within the river corridor would be acquired whenever possible. Rights-of-way for recreational access across State lands would be acquired where necessary.

Recreational use would be managed through facility location and design, and an increased level of visitor services, including signs, brochures, and field contacts.

RECREATION CLASSIFICATIONS IN ALTERNATIVE C

Table 1-6

ROS Class	Approximate Acreage	% of Total Area
Primitive	437,020	44%
Semi-Primitive Motorized	562,770	56%
Roaded Natural	210	Less than 1%

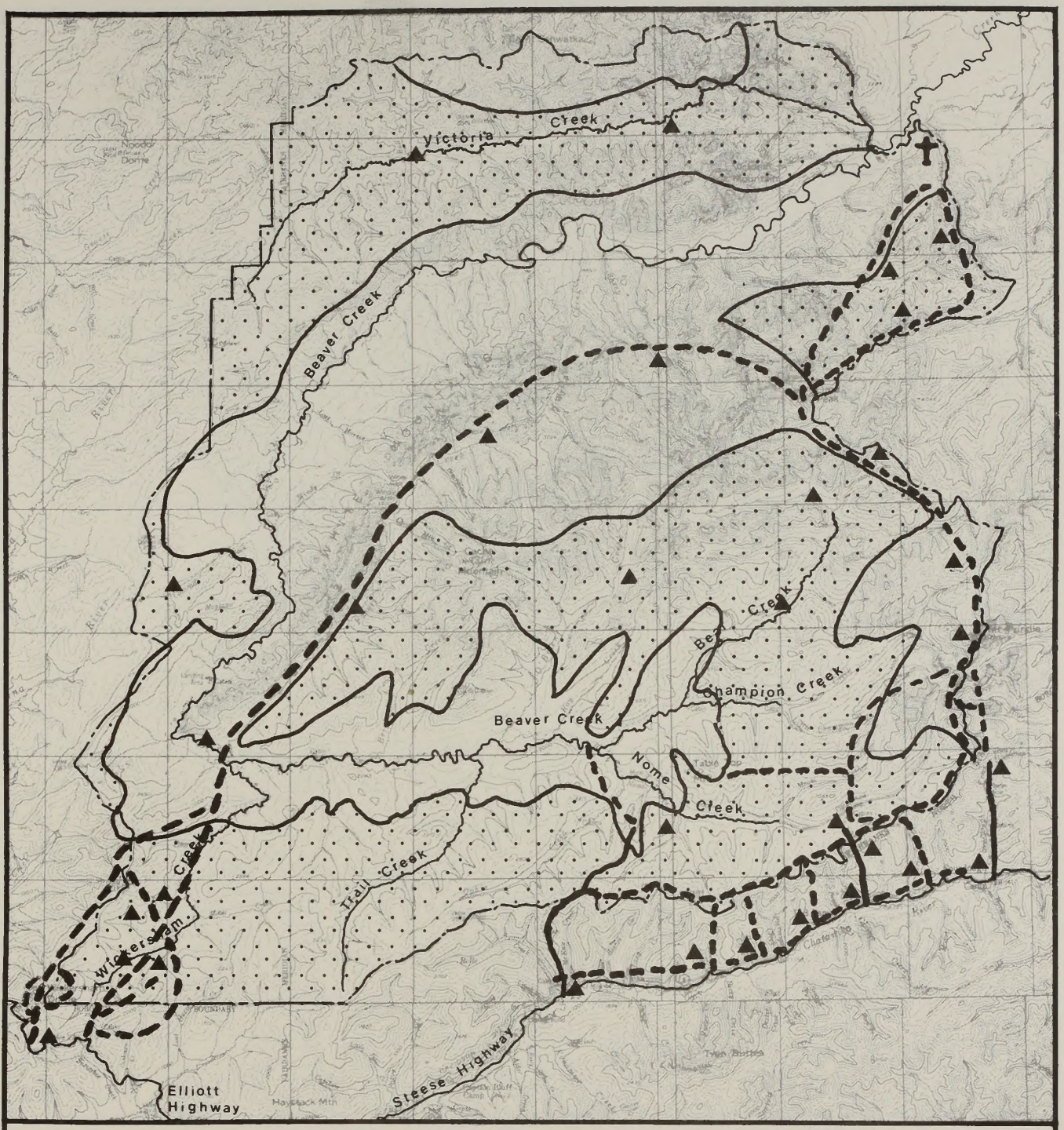
RECREATION FACILITIES IN ALTERNATIVE C

Table 1-7

Facility	Existing	Proposed	Totals
Campgrounds	1	2	3
Interpretive Sites	-0-	7	7
Trailheads	2	11	13
Hiking Trails	39 miles	218 miles	257 miles
Shelters	2	18	20

Wildlife Habitat Management

Wildlife habitats would be managed to increase wildlife populations and habitat to facilitate achievment of ADF&G objectives. Emphasis would be placed on maintenance of populations and habitats in areas of overlapping use where mineral development occurs. Priority species for intensive management are caribou, Dall sheep, moose, peregrine falcons, other raptors, grizzly and black bear, furbearers and small game. Habitat improvement actions would occur through implementation of prescription fires, mechanical treatments, and the Alaska Interagency Fire Management Plan: Upper Yukon-Tanana Planning Unit. Detailed high level inventory and monitoring of the priority species would facilitate intensive management actions. An SMA would be established that encompasses present and historical caribou, Dall sheep, moose, grizzly and black bear, raptor and fish crucial habitats (Map 1-7). Areas closed to mineral entry for habitat protection purposes include: Dall sheep crucial habitats at Mount Schwatka and Victoria Mountain, and portions of Dall sheep crucial habitats at Lime Peak and Mount Prindle. Raptor



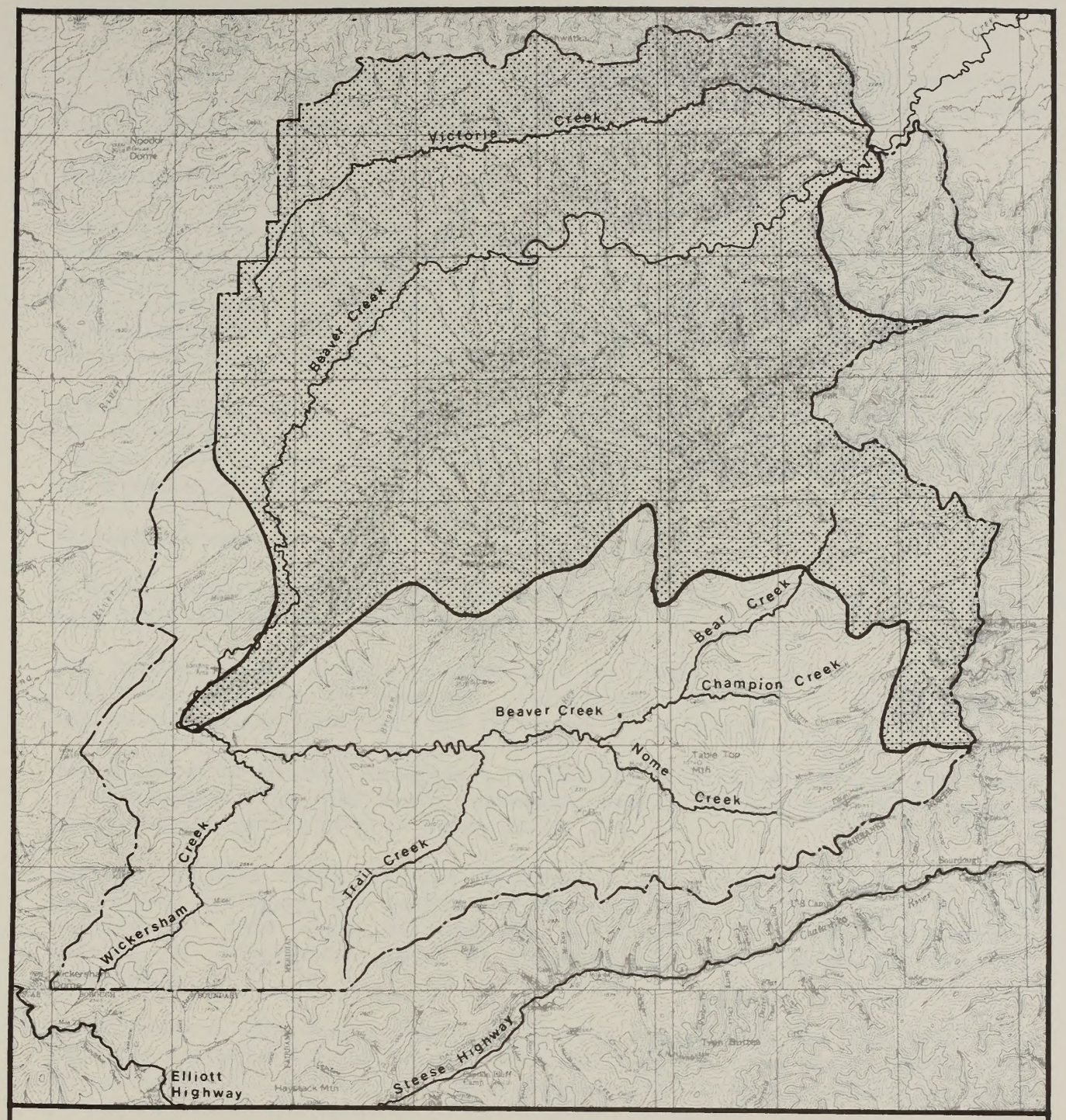
MAP 1-6

RECREATION
ALTERNATIVE C

- Primitive
- Semi-primitive motorized
- Recreation facilities
- Trail
- Vehicle access route
- Airstrip

-N-

5 0 5 10 15 20 25 MILES



MAP 1-7

WILDLIFE
ALTERNATIVE C and D

Special management area

-N-

5 0 5 10 15 20 25 MILES

crucial habitat along Beaver Creek NWR will be closed to mineral entry as a result of the wild river withdrawal in ANILCA. Portions of withdrawn areas contain existing claims that may be maintained and developed.

Fisheries Management

Maintenance and enhancement of all fish habitat would be the objective of this alternative, although maintenance of crucial arctic grayling habitat would receive the most emphasis. Crucial habitat for grayling consists of those areas used for spawning, rearing, or overwintering. Consequently, a strong effort would be made to involve fisheries expertise in enforcement of Surface Management Regulations (43 CFR 3809).

Stream rehabilitation techniques could be employed at Nome Creek to restore the stream as suitable fish habitat. The Bureau's Habitat Management Plan process would be used to accomplish the work. Inventory would be performed to determine crucial use areas.

Minerals Management

A strong effort would be made to enforce Surface Management Regulations. More field inspections would be made.

The Bureau would initiate examinations on claims at the request of the claimant, in cases of flagrant unauthorized use, or if the Authorized Officer determines that the land is needed for a federal program.

For purposes of mineral management, a Limited Mineral Development Zone would be maintained. The LMDZ would correspond exactly to the area to be managed for primitive recreation, as shown on Map 1-6.

Outside the wild river corridor, holders of unperfected mining claims would be allowed to apply for leases for those claims. In addition, all lands outside the LMDZ would be open to new leasing of locatable minerals. Leasing of locatables would be governed by new regulations not yet formulated.

In accordance with the appropriate Leasing Regulations (43 CFR 3100), and with the exception of the Beaver Creek NWR corridor, the entire WMNRA would be opened to oil and gas leasing. However, no surface occupancy would be permitted within the LMDZ.

Coal or geothermal leasing is not permitted within a National Recreation Area (43 CFR 3201.1-6 and 43 CFR 3400.2).

All lands outside the LMDZ would be opened to leasing of non-energy minerals in accordance with the appropriate leasing regulations (43 CFR 3500).

Disposals of sand, gravel, stone, and other saleable minerals under 43 CFR 3600 would be made only if compatible with other provisions of this land use plan.

All lands would be open to mineral exploration. All exploration activities would require a plan of operations, which would be subject to the approval of the Authorized Officer.

MINERAL ACTIONS IN ALTERNATIVE C

Table 1-8

Action	Approximate Acres Opened	% of Total Area
Leasing of Locatables	562,980	56%
Oil and Gas Leasing	930,000*	93%
Leasing of Non-energy Minerals	562,980	56%

*Surface occupancy would not be allowed on a portion (437,020 acres) of this area.

Water Resource Management

Management would be aimed at maintaining water quality levels no lower than the current ADEC classification. The enforcement of surface management and mineral leasing regulations would be designed to achieve this objective. In the case of limited enforcement capability, priorities would be established according to the value of the resources at risk.

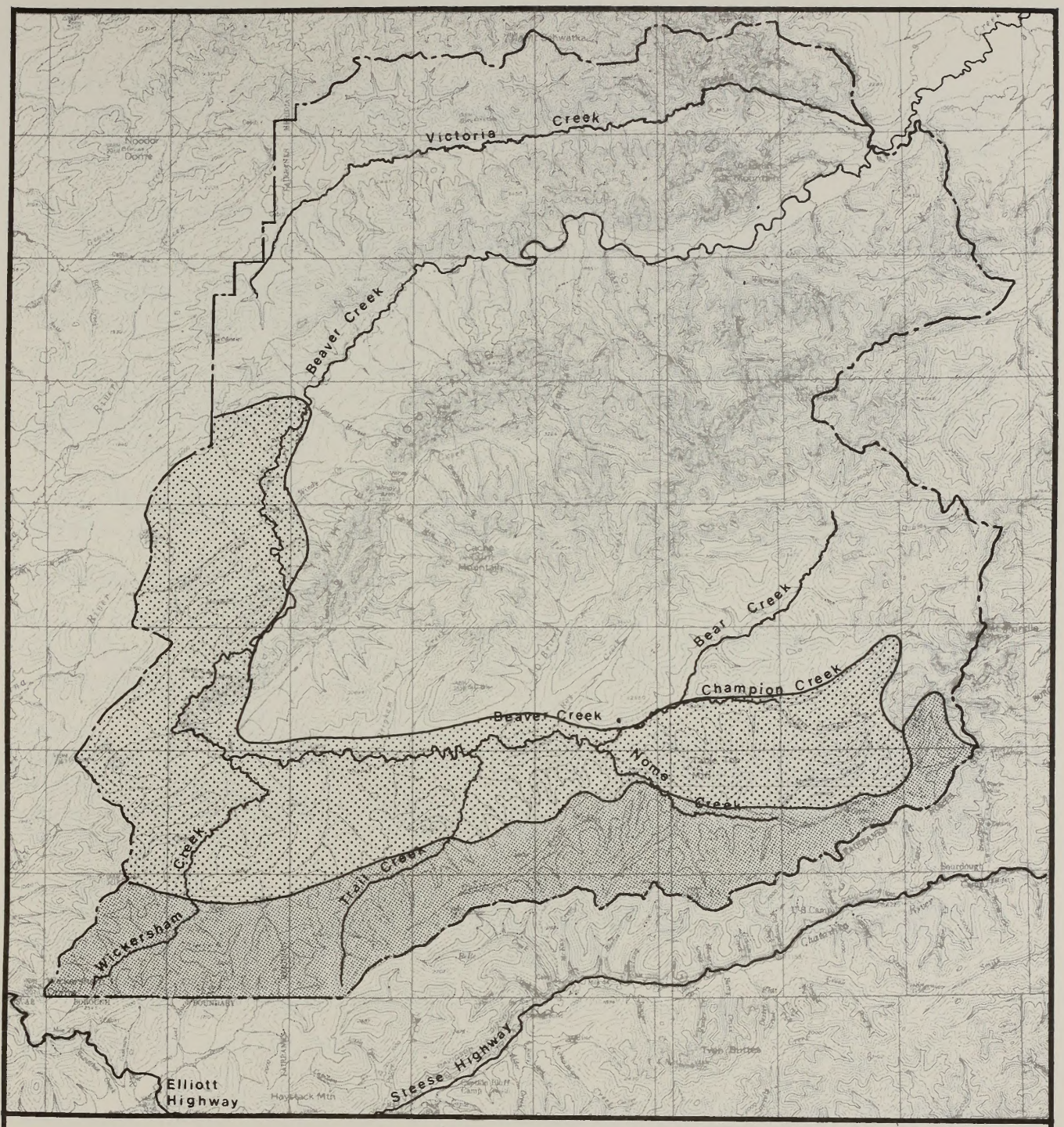
A network of water resources monitoring stations would be established with emphasis on important fisheries habitats and areas of potential mineral development. Water resources information in upland areas would be collected where it would be of most value to wildlife resources.

An instream flow study would be conducted on Beaver Creek to quantify the water rights needed to protect the values for which the wild river was established. BLM would respond to requests for water supply sources, and water projects related to proposed developments.

Fire Management

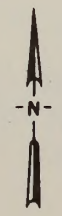
The Alaska Interagency Fire Management Plan: Upper Yukon-Tanana Planning Unit would be carried out according to one of the four options described in Appendix A. The areas in which particular options would be applied are shown on Map 1-8.

Designations have been made with the objective of trying to approximate a natural fire regime. Suppression activities would be kept to the lowest



MAP 1-8

FIRE MANAGEMENT
ALTERNATIVES B, C, D, and E



Full protection area
Modified action area
Limited action area

5 0 5 10 15 20 25 MILES

level consistent with the need to protect life and property and to prevent fires from escaping from the WMNRA. Policy on inhabited cabins, historical cabins, and fire plan modifications would be the same as in Alternative A.

Prescribed burning would be used to improve wildlife habitat and to manage fuels. Fuels would be managed in the southern part of the WMNRA to reduce the probability of large, severe fires in that area. Other areas where prescribed burning could be used would be identified as more information becomes available.

Prior to any prescribed burn, the area would be thoroughly investigated to identify any inhabited cabins, historical sites, or other critical protection sites; and appropriate measures would be taken to protect these sites.

Fuels management and other strategies would be identified which would reduce the wildfire hazard to structures requiring fire protection.

Off-Road Vehicles and Aircraft

ORV use which would impact areas designated for primitive recreation management would be limited. Motorized access would be generally unrestricted in other areas.

Within areas designated for primitive recreation management (See Map 1-6), use of vehicles of less than 1,500 pounds gross vehicle weight would be unrestricted. Operation of vehicles of greater than 1,500 pounds GVW off a valid right-of-way would require approval of the Authorized Officer.

In all other areas ORV use would be unrestricted except on hiking trails. A monitoring program would be established, and ORV use may be limited further if significant problems arise.

Aircraft use would generally be unrestricted.

Rights-of-Way and Other Realty Actions

Rights-of-way which would allow increased public access would be encouraged in all areas except those designated for primitive recreation management, as shown on Map 1-6. Rights-of-way may be allowed to cross primitive areas if there is no reasonable alternative. Holders of rights-of-way would be required to allow public access for recreation unless there is a compelling reason to deny such access.

All other actions would generally be permitted if they were compatible with land uses designated in this plan.

The land exchanges proposed in Alternative B, Map 1-5, would also be proposed under this alternative. The Wickersham Dome area would be retained in federal ownership.

Policy on transportation corridors and crossing points in the wild river corridor would be the same as described in Alternative B.

Visual Resource Management

Present scenic quality would generally be maintained in areas designated for primitive recreation management. In other areas, changes may be permitted if necessary to meet the goals of this plan.

Scenic quality would be protected through NEPA assessments and Surface Management Regulations by identifying and mitigating adverse impacts of proposed actions.

Disturbed areas within the wild river viewshed would be rehabilitated if feasible.

Fire or vegetation manipulation for wildlife habitat improvement would not be considered adverse impacts.

Cultural and Paleontological Resource Management

Class III site-specific inventories will be conducted as development demands.

Historic structures will be evaluated for possible recreational use.

Research Natural Areas and Areas of Critical Environmental Concern

Research Natural Areas would be designated at Serpentine Slide, Limestone Jags, and Mount Prindle. They would be managed as described in Alternative B. No Areas of Critical Environmental Concern would be designated.

Forest Management

All areas except the Research Natural Areas would be open to timber harvest. Harvest in the wild river corridor must be consistent with the wild river management plan. Harvest within the viewshed of Beaver Creek would be designed to minimize visual impacts. Measures would be taken to promote revegetation after any surface disturbance.

Subsistence

Subsistence would be protected by identifying and mitigating impacts through the NEPA process and enforcement of the Surface Management Regulations.

The wildlife management program would be intensified. Details are in the Wildlife Habitat Management Section.

Sensitive and Rare Plants

Inventories of all likely sensitive and rare plant habitats and studies of plants found would be undertaken to facilitate determination of their status under the Endangered Species Act. Information gained would help prevent alteration or destruction of habitats which could lead to listing of the plants as threatened or endangered under the ESA.

Sites would be protected by modifying proposed actions which threaten habitats or by denying those actions which cannot be modified. When actions cannot be modified or denied, attempts will be made to salvage plant materials, especially ripe seed. In addition to salvage actions, attempts will be made to establish colonies in likely habitats where practicable.

DESCRIPTION OF ALTERNATIVE D

Summary

Recreation would be regarded as the primary use, and recreation management would be directed toward improved access and increased visitation. Economic development and human use of resources would be encouraged. This would require intensive management of most resources and activities, with management aimed at facilitating use of those resources.

Recreation Management

Primitive ROS classifications would be maintained within the river corridor, the proposed Research Natural Areas, and certain areas with high scenic quality or special wildlife values. Management would be aimed at permitting motorized ROS classifications in other areas, as shown in Table 1-9.

Existing trails and facilities would be maintained. New campgrounds and trails would be constructed. Cabins suitable for summer or winter use by small parties would be constructed to provide shelter for hunters, hikers, or other recreationists. Facility locations are shown on Map 1-9.

A small area suitable for gold panning would be made available and managed for recreational mining.

Access would be improved by encouraging construction of improved roads in some locations. Construction may be accomplished by working with the State of Alaska or with private development interests, such as miners. Also, an airstrip would be provided near the mouth of Victoria Creek.

Land exchanges would be proposed to acquire adjacent State lands with high recreational value. The Wickersham Dome area would be retained in federal ownership. These areas are shown on Map 1-5. Non-federal lands

or interests in lands within the river corridor would be acquired whenever possible. Rights-of-way for recreational access across State lands would be acquired where necessary.

Recreational use would be managed through facility location and design, and an increased level of visitor services, including signs, brochures, and field contacts.

RECREATION CLASSIFICATIONS IN ALTERNATIVE D

Table 1-9

ROS Class	Approximate Acreage	% of Total Area
Primitive	163,480	16%
Semi-Primitive Motorized	801,410	80%
Roaded Natural	35,110	3%

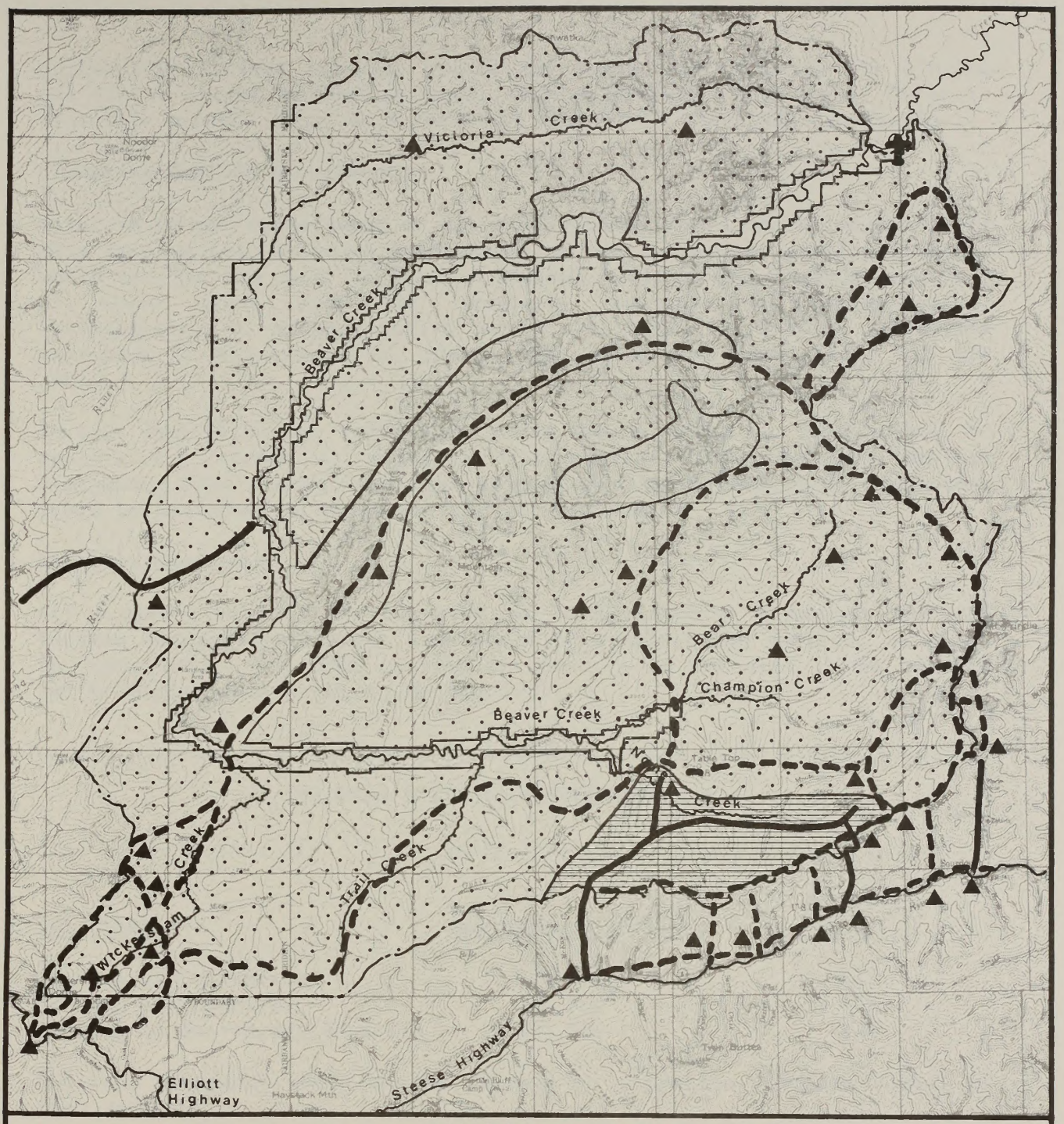
RECREATION FACILITIES IN ALTERNATIVE D

Table 1-10

Facility	Existing	Proposed	Totals
Campgrounds	1	4	5
Picnic Sites	-0-	5	5
Interpretive Sites	-0-	8	8
Trailheads	2	11	13
Hiking Trails	39 miles	302 miles	341 miles

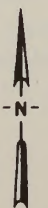
Wildlife Habitat Management

The Wildlife Habitat Management program would emphasize maintenance of wildlife populations and habitat at or near present levels. Priority species for intensive management are caribou, Dall sheep, moose, peregrine falcon, and other raptors. Limited management for grizzly and black bears, furbearers and small game would be implemented. Habitat improvement actions would include use of prescription fire, mechanical treatment and implementation of the Alaska Interagency Fire Management Plan: Upper Yukon-Tanana Planning Unit. Detailed high level inventory and monitoring of priority species would facilitate intensive management actions. An SMA would be designated that would encompass caribou, Dall sheep, moose, raptor and fish crucial habitats as shown on Map 1-7. Areas closed to mineral entry for habitat protection purposes include



MAP 1-9

RECREATION
ALTERNATIVE D



- Primitive
- Semi-primitive motorized
- Roaded natural
- Recreation facilities
- Trail
- Vehicle access route
- Airstrip

5 0 5 10 15 20 25 MILES

portions of caribou movement routes and summer use areas in the O'Brien and Willow Creeks headwaters area. Raptor habitat along Beaver Creek is closed to mineral entry as a result of the Beaver Creek NWR designation.

Fisheries Habitat Management

Maintenance and enhancement of all fish habitat would be the objective of this alternative, although maintenance of crucial arctic grayling habitat would receive the most emphasis. Crucial habitat for grayling consists of those areas used for spawning, rearing, or overwintering. Consequently, a strong effort would be made to involve fisheries expertise in enforcement of the Surface Management Regulations (43 CFR 3809).

Stream rehabilitation techniques could be employed at Nome Creek to restore the stream as suitable fish habitat. The Bureau's Habitat Management Plan process would be used to accomplish the work. Inventory would be performed to determine crucial use areas.

Minerals Management

All proposed actions are the same as in Alternative C except that the Limited Mineral Development Zone would be considerably smaller, as shown on Table 1-11. The LMDZ corresponds exactly to the area to be managed for primitive recreation. (See Map 1-9.)

MINERAL ACTIONS IN ALTERNATIVE D

Table 1-11

ROS Class	Approximate Acreage	% of Total Area
Leasing of Locatables	836,520	83%
Oil and Gas Leasing	930,000*	93%
Leasing of Non-energy Minerals	836,520	83%

*Surface occupancy would not be allowed on a portion (163,480 acres) of this area.

Water Resource Management

Water resource management would be aimed at maintaining water quality levels no lower than the current ADEC classification. This would allow some degradation of water quality in certain areas in order to accommodate mining or other development. The enforcement of surface management and mineral leasing regulations would be designed to achieve this objective.

A limited network of water quality monitoring stations would be established around areas of proposed developments.

In-stream flow studies would be conducted on Beaver Creek to quantify water rights needed to protect the values for which the wild river was established. BLM would respond to requests for water supply sources and water resources information related to proposed developments.

Fire Management

The Alaska Interagency Fire Management Plan: Upper Yukon-Tanana Planning Unit would be carried out according to one of the four options described in Appendix A. The areas in which particular options would be applied are shown on Map 1-8.

Designations have been made with the objective of trying to approximate a natural fire regime. Suppression activities would be kept to the lowest level consistent with the need to protect life and property and to prevent fires from escaping from the WMNRA. Policy on inhabited cabins, historical cabins, and fire plan modifications would be the same as in Alternative A.

Prescribed burning would be used to improve wildlife habitat and to manage fuels. Fuels would be managed in the southern part of the WMNRA to reduce the probability of large, severe fires in that area. Other areas where prescribed burning could be used would be identified as more information becomes available.

Prior to any prescribed burn, the area would be thoroughly investigated to identify any inhabited cabins, historical sites, or other critical protection sites; and appropriate measures would be taken to protect these sites.

Fuels management and other strategies would be identified which would reduce the wildfire hazard to structures requiring fire protection.

Off-Road Vehicle and Aircraft

Motorized access would be encouraged in most areas.

In areas designated for primitive recreation management, use of vehicles of less than 1,500 pounds gross vehicle weight would be unrestricted. Operation of vehicles of greater than 1,500 pounds GVW off a valid right-of-way would require approval of the Authorized Officer.

Rights-of-Way and Other Realty Actions

Rights-of-way which would allow increased public access would be encouraged in all areas except those designated for primitive recreation management. Rights-of-way may be allowed to cross primitive areas if there is no reasonable alternative. Holders of rights-of-way would be required to allow public access for recreation unless there is a compelling reason to deny such access.

All other actions would generally be permitted if they were compatible with land uses designated in this plan.

Proposed land exchanges remain the same as in Alternative B, and are shown on Map 1-5. The Wickersham Dome area would remain in federal ownership.

Policy on transportation corridors and crossing points in the wild river corridor would be the same as described in Alternative B.

Visual Resource Management

Present scenic quality would generally be maintained in areas designated for primitive recreation management. In other areas, changes may be permitted if necessary to meet the goals of this plan.

Scenic quality would be protected by identifying and mitigating adverse impacts of proposed actions.

Disturbed areas within the wild river viewshed would be rehabilitated if feasible.

Fire or vegetation manipulation for wildlife habitat improvement would not be considered adverse impacts.

Cultural and Paleontological Resource Management

Class III site-specific inventories will be conducted as development demands.

Historic structures will be evaluated for possible recreational use.

Research Natural Areas and Areas of Critical Environmental Concern

Research Natural Areas would be designated at Serpentine Slide, Limestone Jags, and Mount Prindle. They would be managed as described in Alternative B.

No Areas of Critical Environmental Concern would be designated.

Forest Management

All areas except the Research Natural Areas would be open to timber harvest. Harvest in the wild river corridor must be consistent with the wild river management plan. Harvest within the viewshed of Beaver Creek would be designed to minimize visual impacts. Measures would be taken to promote revegetation after any surface disturbance.

Subsistence

Subsistence would be protected by identifying and mitigating impacts through NEPA assessments and enforcement of Surface Management Regulations.

Human use of subsistence species would be facilitated by improved access.

Sensitive and Rare Plants

Inventories of all likely sensitive and rare plant habitats and studies of plants found would be undertaken to facilitate determination of their status under the Endangered Species Act. Information gained would help prevent alteration or destruction of habitats which could lead to listing of the plants as threatened or endangered under the ESA.

Sites would be protected by modifying proposed actions which threaten habitats or by denying those actions which cannot be modified. When actions cannot be modified or denied, attempts would be made to salvage plant materials, especially ripe seed. In addition to salvage actions, attempts would be made to establish colonies in likely habitats where practicable.

DESCRIPTION OF ALTERNATIVE E

Summary

This was the preferred alternative of the draft plan which was released in December of 1983. Public comment on the draft led to the reformulation of a new Preferred Alternative of the Proposed Plan. Alternative E is included in this final Environmental Impact Statement for purposes of comparison with the Proposed Plan.

Under this alternative, recreation would be regarded as the primary use. This alternative would provide a variety of recreational opportunities, including both motorized and non-motorized recreation.

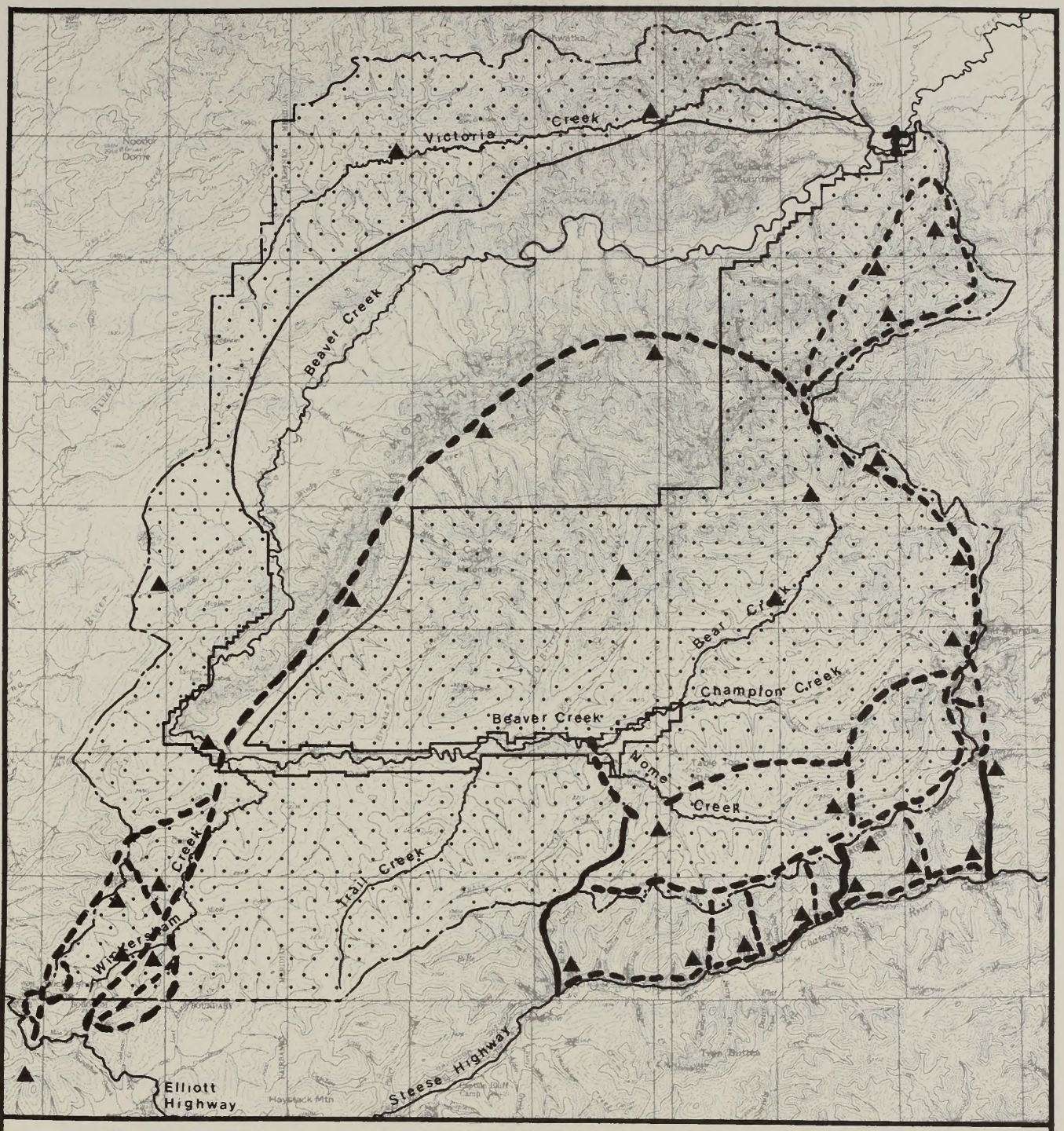
Recreation Management

Within the primitive areas shown on Map 1-10, the objective of management would be to maintain primitive ROS classifications.

A small area suitable for gold panning would be made available and managed for recreational mining.

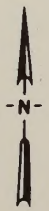
Access would be improved by encouraging construction of improved roads at several locations. Construction may be accomplished by working with the State of Alaska or with private development interests, such as miners. Also, an airstrip would be provided near the mouth of Victoria Creek if possible.

Land exchanges would be proposed to acquire adjacent State lands with high recreational value. Non-federal lands or interests in lands within the river corridor would be acquired whenever possible. Federal lands outside of the WMNRA near Wickersham Dome would be retained in federal ownership and managed for recreation. These areas shown on Map 1-5.



MAP 1-10

RECREATION
ALTERNATIVE E



- Primitive
- Semi-primitive motorized
- Recreation facilities
- Trail
- Vehicle access route
- Airstrip

5 0 5 10 15 20 25 MILES

Recreational use would be managed through facility location and design, and an increased level of visitor services, including signs, brochures, and field contacts.

Existing trails and facilities would be maintained. New campgrounds and trails would be constructed. Cabins suitable for summer or winter use by small parties would be constructed to provide shelter for hunters, hikers, or other recreationists. Facility locations are shown on Map 1-10. Where proposed trails cross State lands, rights-of-way would be acquired.

Facilities would be constructed as funding permits. The numbers and type of facilities, as well as the priorities, are as follows.

FIRST PRIORITIES

US Creek, Steese Highway:	Picnic, Interpretive, and Trailhead Site
Ridge Top:	Picnic, Interpretive, and Trailhead Site
Upper Nome Creek:	Picnic, Interpretive, and Trailhead Site
Wickersham Dome:	Interpretive Site
Perhaps Creek:	Trailhead Site
Cripple Creek Campground:	Trailhead Site
Upper Sourdough Creek:	Trailhead Site
Shelters:	Wickersham Dome Area (3), at Trail Creek Trail Junction, Winter Trail, and Summer Trail Mount Prindle (1)
Trails:	Wickersham Dome Loops (31 miles)
	Davidson Ditch 1-1 Moose Creek to Cripple Creek (12 miles)
	Mount Prindle Loop 1-1 via Nome Creek and Champion Creek Ridge routes (23 miles)
	Perhaps Creek (3 miles)
	Grouse Creek (4 miles)
	Moose Creek (3 miles)
	Southern Ridgetop 1-1 Moose Creek to US Creek (10 miles)

SECOND PRIORITIES:

Ridge Top:	Campground
Perhaps Creek:	Picnic and Trailhead Site
Upper Sourdough Creek:	Interpretive Site
Wickersham Dome:	Vault Toilet
Moose Creek:	Trailhead Site
Grouse Creek:	Trailhead Site
Shelters:	Fossil Creek (1)
	Trail Creek-O'Brien Creek Trail (1)
	Bear Creek (2)
	Quartz Creek (2)
	White Mountain (2)

Trails:	White Mountain (58 miles) Davidson Ditch 1-1 Cripple Creek to Sourdough Creek (4 miles) Mount Prindle Loops (8 miles) Table Top Mountain (8 miles)

THIRD PRIORITIES:

Upper Sourdough Creek:	Campground
Lower Nome Creek:	Picnic and Trailhead Site
McKay Creek-Steese Highway:	Interpretive and Trailhead Site
Shelters:	Victoria Creek (2) Lime Peak Northeast (3) Colorado Creek (1)
Trails:	Lime Peak Northeast (38 miles) Davidson Ditch (Moose Creek to McKay Creek) (8 miles) Mount Prindle to Lime Peak (16 miles)

The acreages to be maintained in each ROS classification are shown in Table 1-12.

RECREATION CLASSIFICATIONS IN ALTERNATIVE E

Table 1-12

ROS Class	Approximate Acreage	% of Total Area
Primitive	293,080	29%
Semi-Primitive Motorized	706,920	71%
Roaded Natural	210	less than 1%

Wildlife Habitat Management

Wildlife habitats would be managed to increase wildlife populations and habitat to facilitate achieving ADF&G objectives. Emphasis would be placed on maintenance of populations and habitats in overlapping areas where mineral development occurs. Priority species for intensive management would be caribou, Dall sheep, peregrine falcon, other raptors, grizzly and black bear, furbearers and small game. Habitat improvement actions would occur through implementation of prescription fires, mechanical treatments, and the Alaska Interagency Fire Management Plan: Upper Yukon-Tanana Planning Unit. Detailed high level inventory and monitoring of the priority species would facilitate intensive management actions. An SMA would be established that would encompass present and historical caribou, Dall sheep, moose, grizzly and black bear, raptor and

fish crucial habitats (Map 1-11). Areas closed to mineral entry for habitat protection purposes include Dall sheep crucial habitats of Victoria Mountain and portions of caribou movement routes in the headwaters area of Willow Creek. Raptor habitat along Beaver Creek is closed to mineral entry as a result of the Beaver Creek NWR designation.

Fisheries Habitat Management

Maintenance and enhancement of all fish habitat would be the objective of this alternative, although maintenance of crucial arctic grayling habitat would receive the most emphasis. Crucial habitat for grayling consists of those areas used for spawning, rearing, or overwintering. Fisheries expertise would be used in implementation of the Surface Management Regulations (43 CFR 3809).

Stream rehabilitation techniques could be employed at Nome Creek to restore the stream as suitable fish habitat. The Bureau's Habitat Management Plan process would be used to accomplish the work. Inventory would be performed to determine crucial use areas.

Minerals Management

Implementation of Surface Management Regulations would be improved. More field inspections would be made.

The Bureau would initiate examinations at the request of the claimant, in cases of flagrant unauthorized use, or if the Authorized Officer determines that the land is needed for a federal program.

A Limited Mineral Development Zone would be maintained to insure protection of the wild river, areas of high scenic value, and other values which contribute to public enjoyment. The LMDZ would correspond exactly to the area where a primitive ROS classification would be maintained (see Map 1-10).

Outside the wild river corridor, holders of unperfected mining claims would be allowed to apply for leases for those claims. In addition, all lands outside the LMDZ would be open to new leasing of locatable minerals. Leasing of locatables would be governed by new regulations not yet formulated.

In accordance with the appropriate leasing regulations (43 CFR 3100), all lands outside the LMDZ would be opened to oil and gas leasing. Coal or geothermal leasing is not permitted within a National Recreation Area (43 CFR 3201.1-6 and 43 CFR 3400.2).

All lands outside of the LMDZ would be opened for leasing of non-energy minerals in accordance with appropriate leasing regulations (43 CFR 3500).

Disposals of sand, gravel, rock, and other saleable minerals under 43 CFR 3600 would be made only if compatible with other provisions of this land use plan.

All lands would be open to exploration. Surface-disturbing activities would require the filing of a plan of operations which would be subject to the approval of the Authorized Officer.

MINERAL ACTIONS IN ALTERNATIVE E

Table 1-13

Action	Approximate Acres Opened	% of Total Area
Leasing of Locatables	706,920	71%
Oil and Gas Leasing	706,920	71%
Leasing of Non-energy Minerals	706,920	71%

Water Resource Management

The Bureau would cooperate with the Alaska Department of Environmental Conservation in water quality management. The current practice of collecting data on both water quality and quantity would continue when trips are made to the WMNRA.

An instream flow study on Beaver Creek would be conducted to quantify reserved water rights needed to protect the values for which the wild river was established. BLM would respond to requests for water supply sources and water projects related to proposed developments.

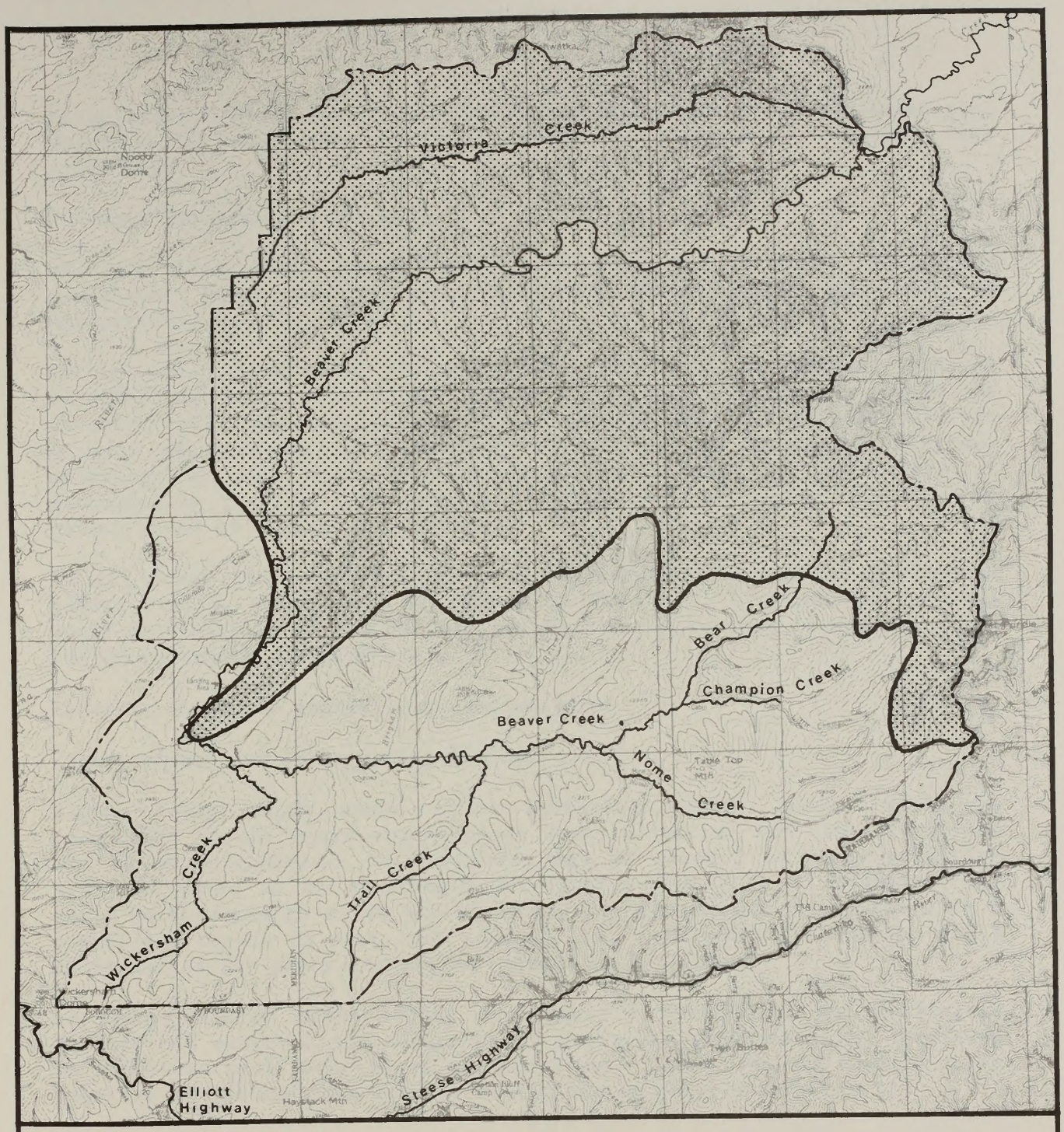
Fire Management

The Alaska Interagency Fire Management Plan: Upper Yukon-Tanana Planning Unit would be carried out according to one of the four options described in Appendix A. The areas in which particular options would be applied are shown on Map 1-8.

Policy on inhabited cabins, historic cabins, and fire plan modifications would be the same as in Alternative A.

Prescribed burning would be used to improve wildfire habitat consistent with Habitat Management Plans and to manage fuels. Fuels would be managed in the southern part of the WMNRA to reduce the probability of large, severe fires in that area. Other areas where prescribed burning could be used would be identified as more information becomes available.

Prior to any prescribed burn, the area would be thoroughly investigated to identify any inhabited cabins, historical sites, or other critical protection sites; and appropriate measures would be taken to protect



MAP 1-11

WILDLIFE
ALTERNATIVE E

Special management area

N

5 0 5 10 15 20 25 MILES

these sites. Fuels management and other strategies would be identified which would reduce the wildfire hazard to structures requiring fire protection.

Off-Road Vehicles and Aircraft

ORV use which would impact areas identified for primitive recreation management would be limited. Motorized access would generally be unrestricted in other areas.

Within areas identified for primitive recreation management, use of vehicles of less than 1,500 pounds gross vehicles weight would be unrestricted. Operation of vehicles of greater than 1,500 pounds GVW off a valid right-of-way would require approval of the Authorized Officer. Crossing the wild river corridor would be allowed if there were no economically feasible and prudent alternative. The number of crossing points would be kept to a minimum.

In all other areas ORV use would be unrestricted except on designated hiking trails, which will be closed to ORV use. A monitoring program would be established, and ORV use may be limited further if necessary for the protection of fragile areas.

Aircraft use would generally be unrestricted.

Rights-of-Way and Other Realty Actions

Rights-of-way which would allow increased public access would be encouraged in all areas except those where primitive ROS Classifications are to be maintained. Rights-of-way may be allowed to cross primitive areas if there is no reasonable alternative. Holders of rights-of-way would be required to allow public access for recreation unless there is a compelling reason to deny such access. All proposed rights-of-way would be evaluated for their effects on recreational values.

As transportation needs become more clearly identified, the Authorized Officer may exercise his authority to designate transportation corridors to eliminate proliferation of rights-of-way. Also, several users may be required to use the same road or trail, and to jointly maintain it.

Rights-of-way across the wild river corridor would be allowed if there were no economically feasible and prudent alternative and the proposals were in compliance with the requirements of the approved river management plan for Beaver Creek NWR. The number of crossing points would be kept to a minimum. Crossing points would be selected in consultation with the users and the Alaska Department of Transportation and Public Facilities. Locations would be based on environmental and engineering considerations, and economic feasibility.

Land exchanges would be proposed to acquire State lands outside of the present boundaries which have high recreational value. The Wickersham

Dome area would be retained in federal ownership. These areas are identified on Map 1-5.

The Bureau may apply for rights-of-way across State lands to provide access to the Area.

All other actions would generally be permitted if they were compatible with land uses designated in this plan.

Visual Resource Management

Present scenic quality would generally be maintained in areas designated for primitive recreation management. In other areas, changes may be permitted if necessary to meet the goals of this plan.

Scenic quality would be protected by identifying and mitigating adverse impacts of proposed actions.

Disturbed areas within the wild river viewshed would be rehabilitated if feasible.

Fire or vegetation manipulation for wildlife habitat improvement would not be considered adverse impacts.

Cultural and Paleontological Resource Management

Class III site-specific inventories will be conducted as development demands.

Historic structures will be evaluated for possible recreational use.

Research Natural Areas and Areas of Critical Environmental Concern

Serpentine Slide (4,274 acres), Limestone Jags (5,170 acres), and Mount Prindle (3,147 acres in WMNRA) would be designated as Research Natural Areas. Locations and boundaries are shown in Appendix B. No surface-disturbing activities would be allowed, except permitted research projects. The areas would be closed to off-road vehicles and camping to avoid disturbing research projects. Natural processes, including wildfire, would be allowed to continue with as little interference as possible. Primitive campsites could be established outside the RNA boundaries and access improved in the form of developed trials, helispots, and airstrips. Hiking, hunting, and nature appreciation would be allowed. Developed trails could be established through the RNAs to reduce damage to research sites and increase public enjoyment.

No Areas of Critical Environmental Concern would be designated.

Forest Management

All areas except the Research Natural Areas would be open to timber harvest. Harvest in the wild river corridor must be consistent with the river plan. Harvest within the viewshed of Beaver Creek would be designed to minimize visual impacts. Measures would be taken to promote revegetation after any surface disturbance.

Subsistence

Subsistence use and subsistence resources would be protected by identifying and mitigating impacts through the NEPA process and enforcement of the Surface Management Regulations. Management would be coordinated with adjacent land managers.

Sensitive and Rare Plants

Sensitive or rare plant habitats would be protected from activities which may alter or destroy them and would be managed in a way that would make listing them as threatened or endangered unnecessary.

Inventories for sensitive and rare plants would be conducted as funds were available or as required for clearances for proposed surface-disturbing activities. Sites would be protected by modifying proposed actions which threaten sensitive or rare plant habitats or by denying those actions which cannot be modified. When actions cannot be modified or denied, plant material salvage will be attempted. Salvage of ripe seed is most desirable.

CHAPTER II - THE AFFECTED ENVIRONMENT

This chapter describes the pertinent physical, biological, and social characteristics of the White Mountains National Recreation Area. It is not intended to be an encyclopedic description. It is intended to explain the alternatives to the Proposed Plan. It also identifies the elements of those alternatives which can be affected by the actions of this RMP/EIS. A general description of the natural and manmade environment can be found in "Alaska Regional Profiles: Yukon Region" (Lidia L. Selkregg, University of Alaska, Arctic Environmental Information and Data Center).

The information presented in this chapter is summarized from more detailed information in the Management Situation Analysis prepared earlier in the planning process. A copy of the MSA is available at the Fairbanks District Office, BLM.

Recreation

A Recreation Opportunity Spectrum analysis, a process currently being used by the U.S. Forest Service and BLM, has been completed for the WMNRA. The ROS classifications resulting from this analysis are a means of describing the recreational opportunities available in the area. Table 2-1 provides a description of the four ROS classifications used while Map 2-1 delineates the classifications.

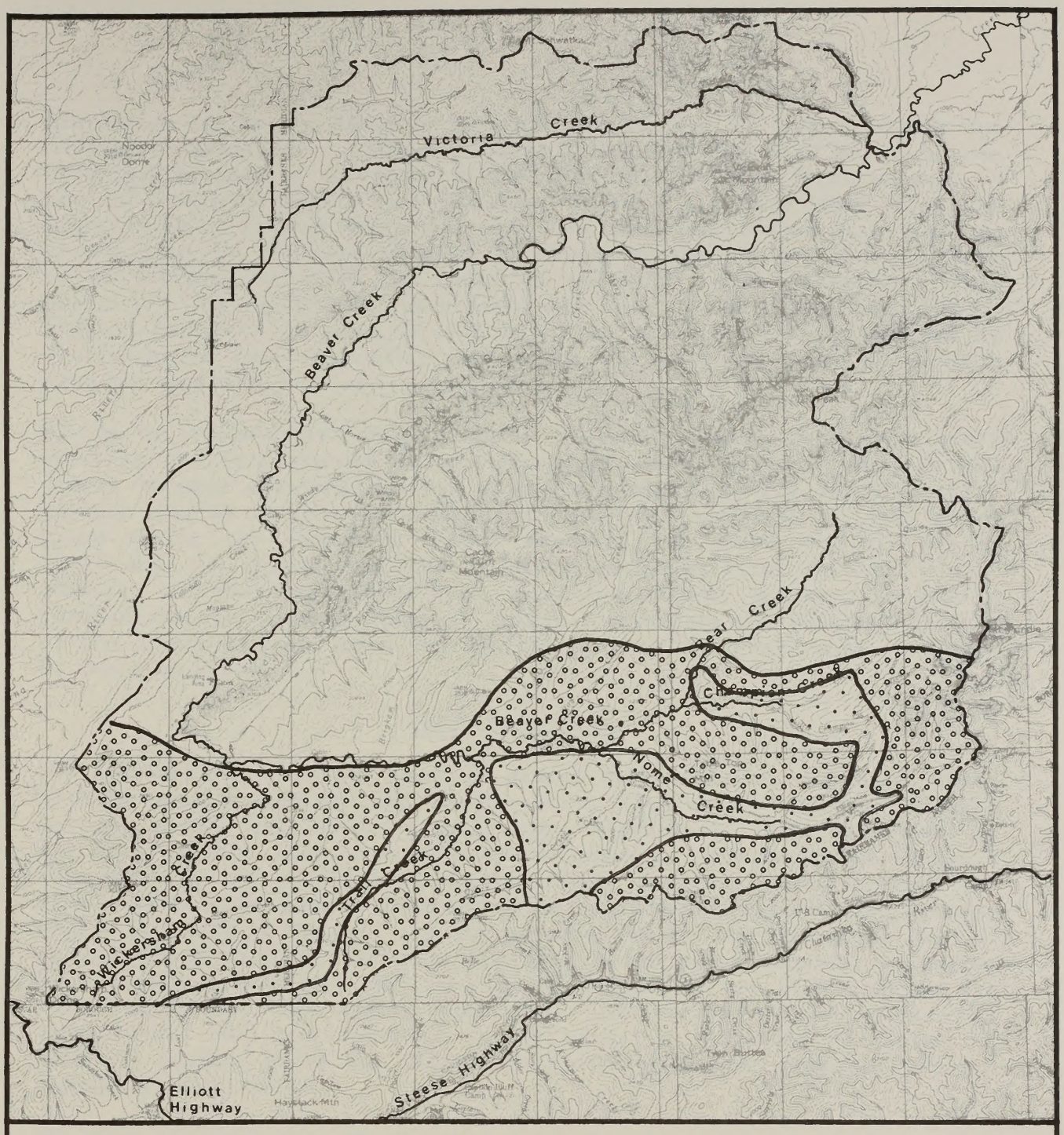
During the ROS analysis the WMNRA was also evaluated for wilderness characteristics as defined by the Wilderness Act (P.L. 88-577). The area (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practical its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value. Nearly all of the area currently classified as primitive under the ROS system contains these wilderness characteristics.

Existing recreational development consists of two public use cabins and two trails, the White Mountain summer trail and White Mountain winter trail, which provide access to Beaver Creek from the Elliot Highway. The summer trail is a hiking trail which generally follows the high ground while the winter trail traverses low, flat areas, and provides winter access via snowmachines or skis. There are no campgrounds within the WMNRA, but the nearby campground at Cripple Creek contributes to recreational use of the area.

SUMMARY DESCRIPTION OF THE ROS CLASSIFICATION SYSTEM

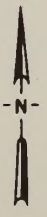
Table 2-1

Primitive	Semi-Primitive Non-Motorized	Semi-Primitive Motorized	Roaded Natural
Area is characterized by essentially unmodified natural environment of fairly large size. Interaction between users is very low, and evidence of other users is minimal. Evidence of motorized use is extremely rare.	Area is characterized by a predominantly natural or natural-appearing environment of moderate to large size. Interaction between users is low, but there is often evidence of other users. There is little evidence of motorized use.	Area is characterized by a predominantly natural or natural-appearing environment of moderate to large size. Concentration of users is low, but there is often evidence of other users. Primitive roads and motorized use are present.	Area is characized by a predominantly natural appearing environment with moderate evidence of the sights and sounds of man. Such evidence usually harmonizes with the natural environment. Interaction between users may be low to moderate, but with evidence of other users prevalent. Resource modification and utilization practices are evident, but harmonize with the natural environment. Roads and motorized use are present.

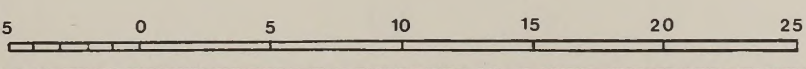


MAP 2-1

EXISTING RECREATION
OPPORTUNITY SPECTRUM CLASS



Primitive
Semi-primitive non-motorized
Semi-primitive motorized



Recreation use in the WMNRA is generally light, due to lack of access and developed facilities. Although Beaver Creek National Wild River is the principal recreation attractor of the Area, use is also light because of the difficult access. Most visitors drive U.S. Creek Road from the Steese Highway to Nome Creek and then line their boats down Nome Creek to Beaver Creek (a distance of about 12 miles) because of low water. There is no surface access to any point on the wild river. Floaters either travel all the way to the Yukon River and down to the Yukon River bridge (which adds 8 to 10 days to the trip) or arrange to be picked up by floatplane or small aircraft, usually in the vicinity of Victoria Creek near the northern boundary of the WMNRA.

Hiking is concentrated on the White Mountain summer trail, but other existing and unmaintained trails are also used. Off-road vehicle use occurs on many existing trails, often in connection with sport hunting, another popular recreational activity. Most recreational activity takes place during the summer or fall. However, the White Mountain winter trail and the public use cabins are lightly utilized in the winter months. The Wickersham Dome area, near the Elliott Highway, is also a popular spot for snowmachining or skiing. Presently the seasonal closure of the Steese Highway makes the eastern part of the WMNRA more difficult to reach in winter.

Wildlife Habitat

The combination of rugged mountain peaks, rolling hills, and many stream valleys provide habitat for many species typical to interior Alaska. Caribou, moose, Dall sheep, grizzly bear, black bear, wolf, and wolverine are the big game species most commonly present. Furbearers of economic importance in the area include marten, lynx, red fox, beaver, otter, and mink. Small game species include spruce, ruffed and sharp-tailed grouse; willow and rock ptarmigan; and the snowshoe hare. The peregrine falcon, an endangered species, inhabits the area as do other raptors, including bald eagles. Waterfowl and many non-game mammal and bird species are found throughout the Area. Additional information concerning species descriptions and distributions is available in "Alaska's Wildlife and Habitat" (ADF&G, 1978) and "Alaska Wildlife Management Plans - Interior Alaska" (ADF&G, 1976).

The area contains year round habitat of the White Mountain caribou herd (Map 2-2) and has been seasonally occupied by the Fortymile caribou herd. The White Mountain caribou population presently numbers 400-1000 caribou and may have arisen from remnants of the large Fortymile herd in the 1950s. During years in which the Fortymile herd numbered approximately 50,000 or more animals (1930 to 1962), the principal calving area was in the White Mountains (Map 2-3). Recently, the Fortymile herd has increased from a low of about 5,000 to the current estimate of 14,000. The ADF&G population goal is 50,000.

Dall sheep occupy alpine areas in the vicinity of Mount Prindle, Lime Peak, Cache Mountain, White Mountains, Victoria Mountain, and Mount Schwatka (Map 2-4). Current numbers of approximately 140 probably represent a stable population after declining by about 60% during the early 1970s. Sheep habitat is limited by a relative shortage of high elevations and encroachment of surrounding spruce forest in the area. Sheep often travel considerable distances through the forested areas to reach mineral licks or other suitable habitat. This combination of forested areas and the scarcity of rugged escape terrain in alpine areas make these sheep more vulnerable to predators and the disruption of traditional movements and use areas.

Moose populations in the area are low. Moose habitat is dominated by spruce forest with stands of willow along rivers and creeks which provide winter browse. Quantity and quality of moose range has been reduced by past wildfire suppression activities.

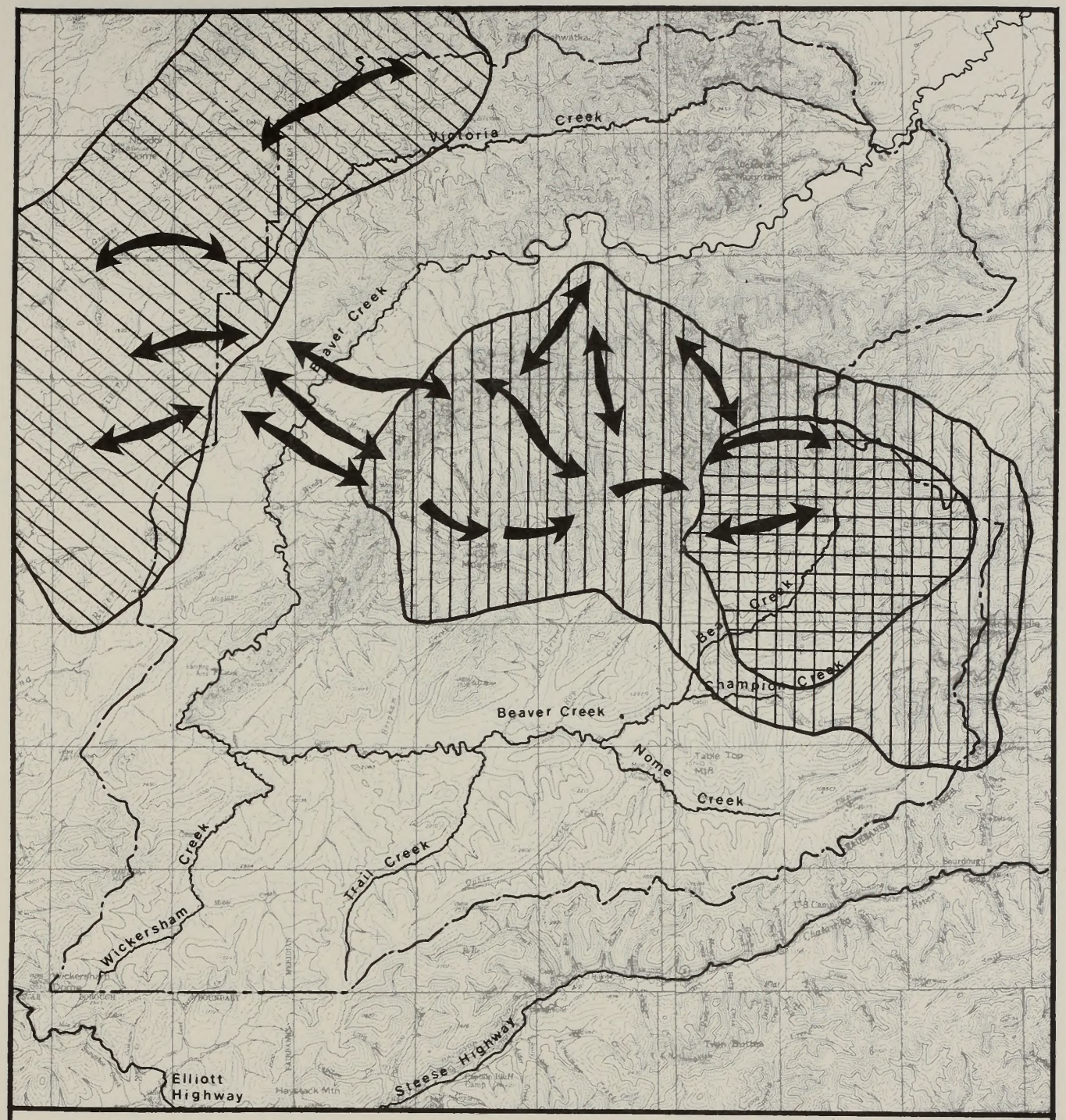
Grizzly bear and black bear are present, but little data are available on denning or other use areas (Map 2-5). No data are available for population numbers, trends, productivity, or survival. Similarly, specific data on population size, trend productivity and use areas for raptors (Map 2-5), wolves, furbearers, small game and non-game species are also lacking.

Fish Habitat

Fish habitat is confined to Beaver Creek and its major tributaries. Fish species found in the portions of the creeks which lie within the WMNRA include arctic grayling, round whitefish, burbot, northern pike, slimy sculpin, and longnose sucker. There are unverified reports of salmon in upper Beaver Creek. One sheefish has been collected but is considered an anomaly in the upper area of Beaver Creek. With the exception of the slimy sculpin and the longnose sucker, species descriptions and distribution maps can be found in "Alaska's Fisheries Atlas" (McLean and Delaney, 1978). Arctic grayling is the species most sought after and caught by sport fishermen. Grayling populations are lightly utilized due to the low public use of the area. Most fishing occurs on Beaver Creek and is associated with recreational floating.

Water quality, water quantity, and physical condition of the stream bottom are important features of fish habitat. Spawning areas, rearing areas, and overwintering areas are all regarded as crucial habitat. The extent and locations of many of these crucial areas are not known at present, but sample testings and comparison with similar streams indicate they are plentiful and in good condition.

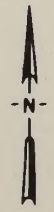
Placer mining has adversely impacted some fisheries, especially on Nome Creek. Mining has physically disturbed seven miles of the stream bottom and has caused high levels of siltation and turbidity as far as 50 miles



MAP 2-2

CARIBOU

Winter range
Summer range
Movement routes
Calving



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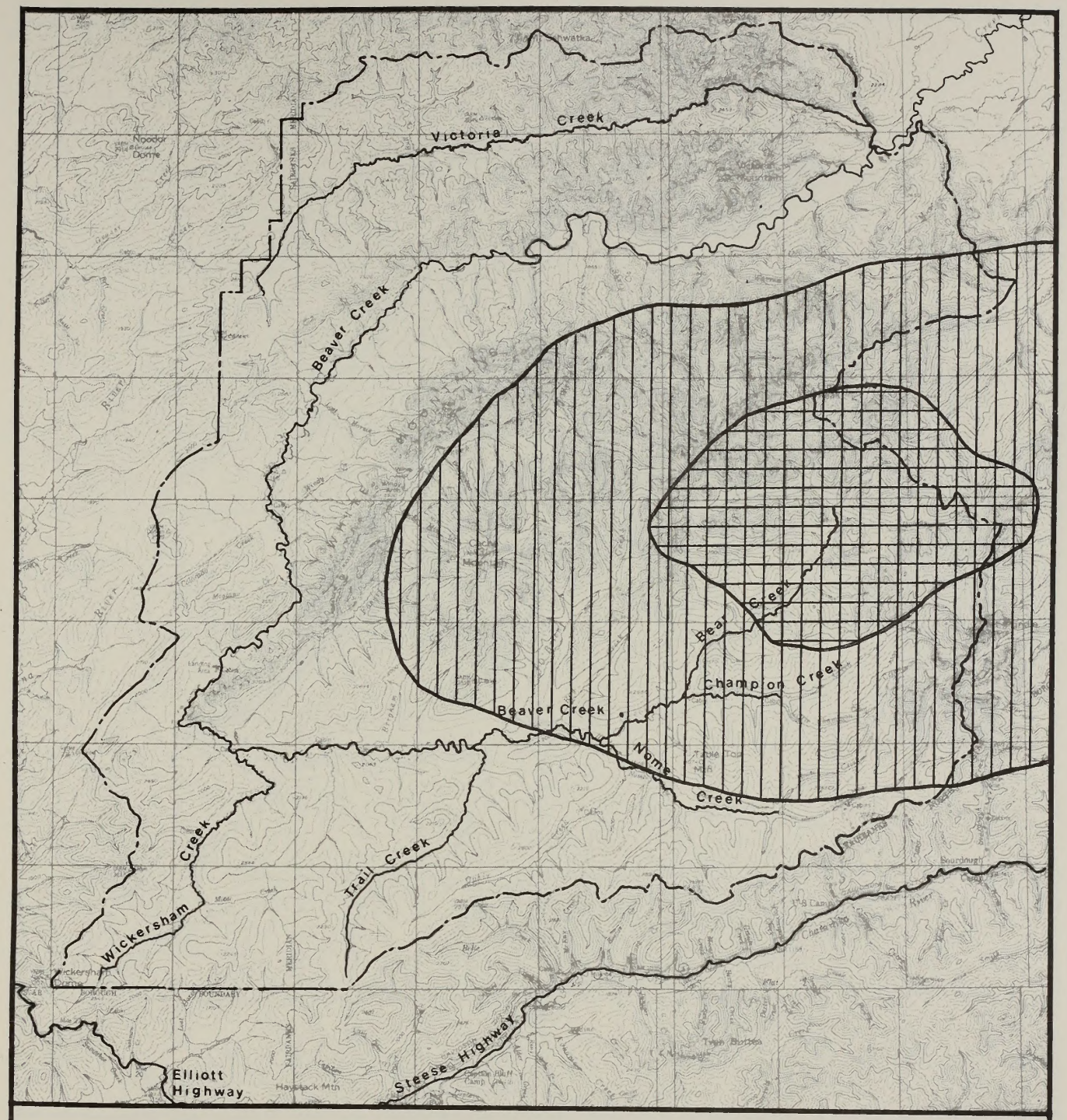

MAP 2-3

FORTYMILE CARIBOU

Historic calving

Core area

N

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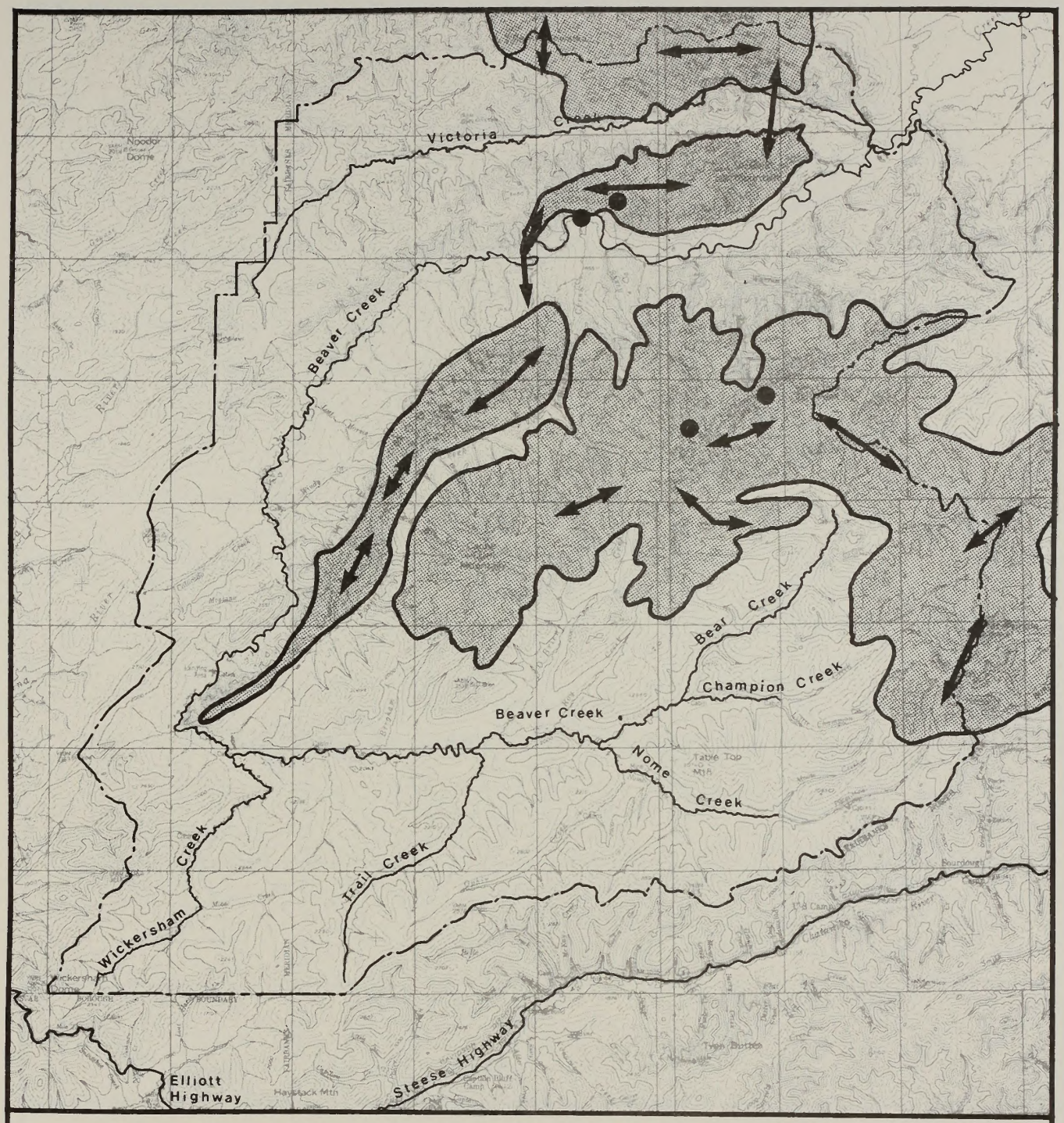


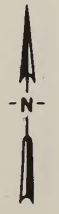
MAP 2-4

DALL SHEEP

Known use area

Movement route

Mineral lick



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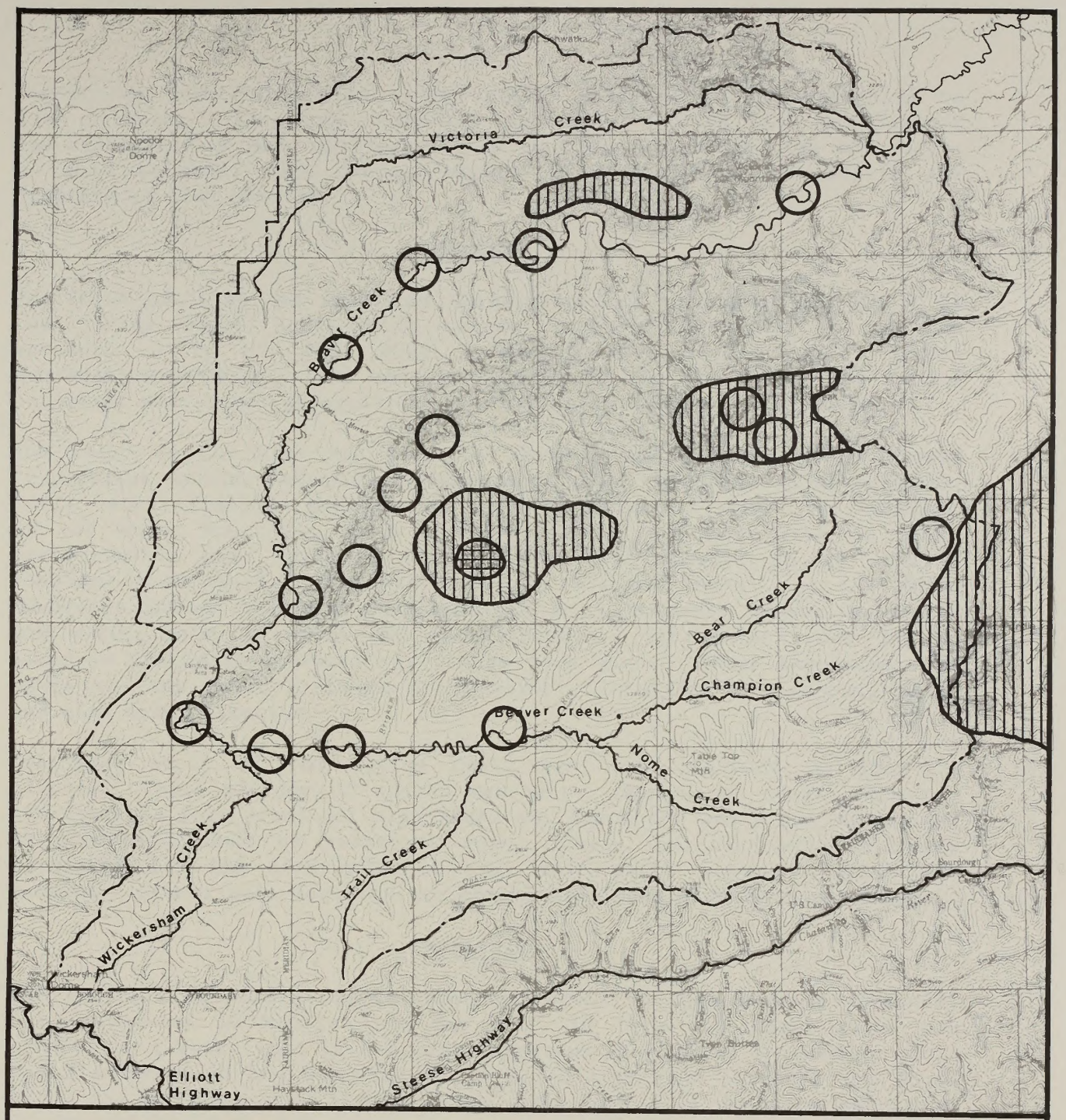


MAP 2-5

GRIZZLY BEARS and RAPTORS

Known raptor nesting habitat
Grizzly bear spring use area
Denning area

-N-

5 0 5 10 15 20 25 MILES

downstream. Excessive silt covers gravel beds, which are essential to fish spawning. Excessive turbidity adversely affects fish populations and also makes it more difficult to catch fish, since the fish are unable to see the lure. The overall impact is a reduction in quality and quantity of fish habitat.

Geology

The WMNRA contains two important stratigraphical controls. The first is the Titina Fault Zone which trends northwest-southeast across the northern half of the area. The Beaver Creek Fault trends northeast-southwest in the eastern portion of the Area. The two faults intercept each other generally in the northeast corner of the WMNRA.

The rocks in the Area are primarily folded and slightly metamorphosed Precambrian and/or Paleozoic sedimentary rocks, Mesozoic clastic rocks, tuffs, and tuffaceous sedimentary rocks of Paleozoic age. The backbone of the White Mountains is a limestone which weathers white to gray, predominantly fine grained, thick bedded and massive up to several thousand feet thick. Contacts with the volcanic basalt in the White Mountains yields volcanic conglomerates in a volcanic graywache matrix and tuffs, some of which are fossiliferous. Ultramafic rocks may be found in the fault contacts with these rock units. These carbonate rock units and the fault contacts are favorable locations for copper, lead, and zinc mineralization.

The area south of the Titina Fault has been intruded by granitic plutons. These plutons of quartz monzonite, monzonite, quartz diorite, and diorites form prominent high peaks and knobs and are often surrounded by hornsfeld zones of resistant rock. These granitic formations are favorable for the deposition of tin, rare earth elements, gold, and uranium. Placer gold deposits are often associated with igneous plutons.

Minerals

The location of mineral occurrences and areas of high mineral potential are delineated on Map 2-6 and Map 2-7. In terms of known value and production levels, gold is the most important mineral in the WMNRA. Gold was discovered in the vicinity in 1910. Placer gold deposits are found along the headwaters of Beaver Creek. No lode gold deposits have been discovered as yet, but there is a potential for lode deposits (U.S. Bureau of Mines, 1978). The quantity of remaining gold reserves is unknown.

Uranium and rare earths have been located at Mount Prindle. Lead and zinc occur in the Lime Peak area, and anomalous concentrations of uranium and tin have also been found there. There is evidence of a deposit of rare earths and uranium at Cache Mountain, with showings of lead, zinc, molybdenum, tin, nickel, and silver. Lead, zinc, and copper have also

been found at Mount Schwatka. Anomalous concentrations of platinum group minerals have been found in the White Mountains. Information available to the BLM does not delineate the extent or value of these deposits.

Two of the minerals found in the WMNRA, gold and zinc, are considered critical minerals (Bundtzen, Eakins, and Dillon, 1980).

In addition to discoveries already made, the potential for future discoveries is considered good. The WMNRA lies in a highly mineralized zone which has had relatively little exploration. The potential for discovering additional deposits of lead, zinc, or other minerals is high (U.S. Bureau of Mines, 1978).

Oil and gas potential is generally low to very low. The most promising area is a narrow strip adjacent to the Yukon Flats National Wildlife Refuge along the northern boundary of the area. There are currently no leases in the WMNRA.

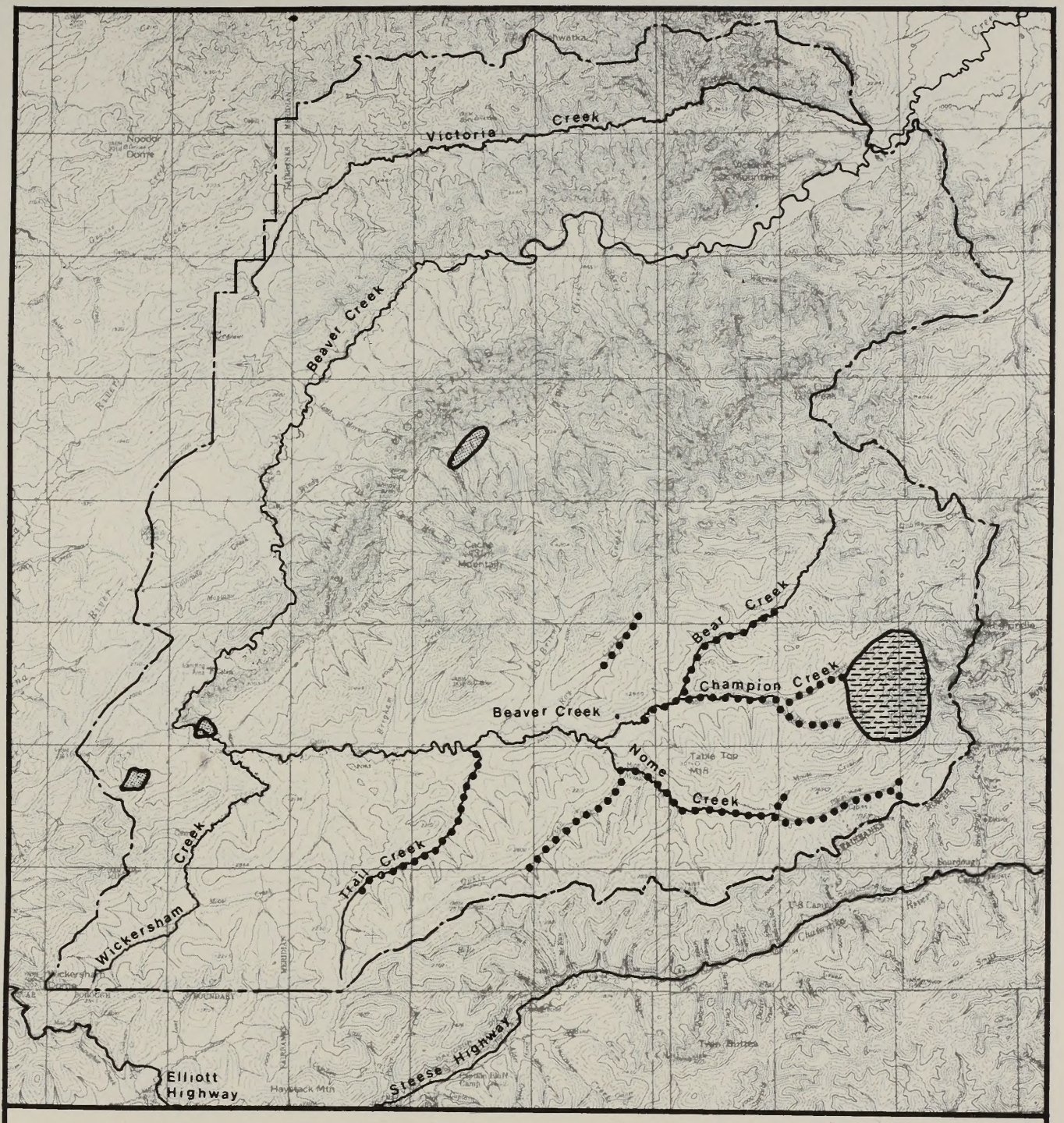
ANILCA (P.L. 96-487) allows for mineral leasing within the WMNRA, but it permanently closed the area to the filing of mining claims under the 1872 Mining Law. However, properly located and maintained claims filed prior to the designation of the Area are still in good standing. There are 627 such claims, but only a few placer gold claims are currently being mined, all of which are in the Nome Creek area. During the 1983 mining season, five plans of operation were filed (43 CFR 3809). The number of claimants who actually operate mines varies from year to year, depending on economic conditions.

Mining usually takes place only from May to November, when water is available. A typical placer mine employs three to ten people. In the typical operation, bulldozers are used to strip overburden and push gravel into a sluice box. Sluice boxes of ten to 75 feet in length are used to separate the gold from the gravel. Water for the sluice is usually supplied by a diesel pump. The waste rock tailings are removed by bulldozers, front-end loaders, or draglines and piled or redistributed over the mined out area.

Small-scale operations may employ only a two-inch to eight-inch suction dredge which draws up water and gravel simultaneously and runs them through a small sluice box.

Water Resources

Beaver Creek and its tributaries drain the entire WMNRA. The rugged mountains and rolling hills of the White Mountains are the major influencing factors on the water resources of the area. Beaver Creek is the major drainage, with small tributaries flowing in from the mountains and hills. These tributaries are generally high-gradient creeks which run fast and clear. Beaver Creek, which originates in WMNRA, flows for 127 miles through the planning area, eventually flowing into the Yukon River.



MAP 2-6

MINERAL OCCURRENCES

Gold
Platinum
Uranium

-N-

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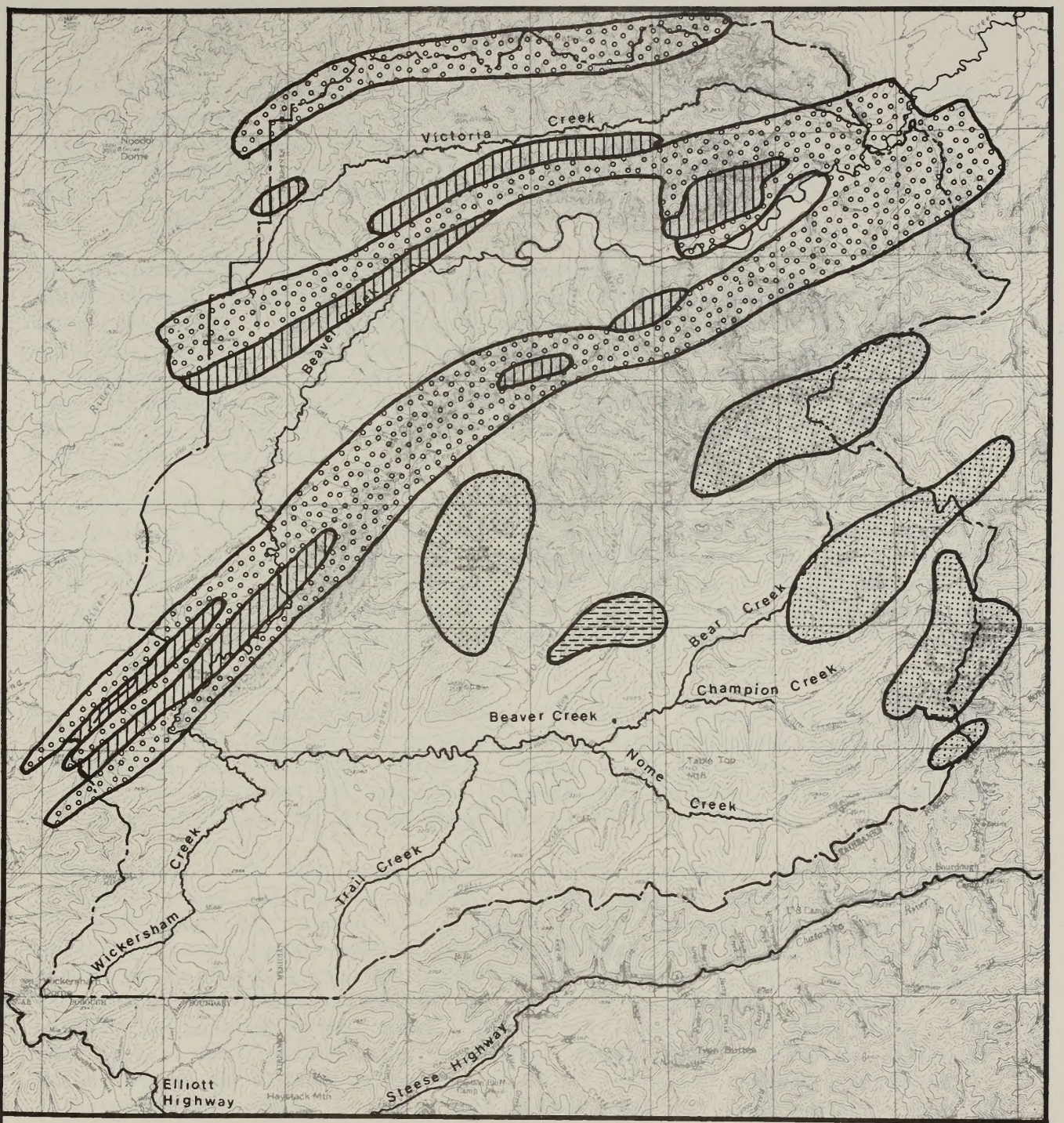
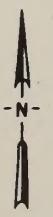


MAP 2-7

MINERAL TERRANES

- Sedimentary (Copper, Lead, Zinc)
- Igneous-Granite (Tin, Tungsten, Molybdenum, Silver, Gold, Antimony, Uranium)
- Igneous—Gabbro (Copper, Nickel, Platinum)
- Igneous Syenite (Rare earth elements, Uranium)



5 0 5 10 15 20 25 MILES

Beaver Creek is a mostly clear, non-glacial stream formed by the joining of two headwater streams draining the White Mountains. Upper reaches flow through mountain valleys where the channel is sometimes braided and relatively swift. After leaving the Area, it enters the Yukon Flats where the velocity declines, and the channel meanders across the Yukon River floodplain.

Water levels can fluctuate markedly throughout the year. The relatively short summers concentrate about 80 percent of the annual runoff into less than five months. On the larger streams (such as Beaver Creek), the peak flow for the year usually occurs within one or two weeks after break-up. Throughout the rest of the summer, rains usually sustain a relatively high discharge. Since the Area is underlain in many places by permafrost, infiltration losses are minimal, increasing the flood flows during the summer months.

The magnitude of the spring flood peak is dependent upon the amount of accumulated snow and temperature sequence during the spring melt period. Although there are no snowpack records available for the Area, average snow fall in the region could be expected to total 30-40 inches per year. A large snowpack over the basin will give a large volume of runoff during the spring. However, if the temperatures increase gradually, the flood peak will not be abnormal.

During the winter months when there is little or no snowmelt or rain, the largest contribution to the stream flow is from groundwater discharge in the channels of the larger streams. There is at least one creek which is spring fed and remains unfrozen through the winter. This inflow can create an open lead on Beaver Creek for up to 100 yards.

Water quality in the area appears to be generally good. Suspended sediment levels are low to moderate, with transport rates of about 10 to 300 milligrams per liter of sediment under natural conditions. The existing mining operations in the Beaver Creek headwaters on Nome Creek periodically cause great increases in the sediment load. Highly turbid water has been observed as far as 50 miles downstream. Chemical water quality is generally very good. Dissolved solids range from about 5 to 200 mg/l. Some tributaries to Beaver Creek flow a reddish or brown color, which is caused by the presence of iron or organic compounds in solution. The water is generally acceptable for consumption, but it should be treated or boiled to prevent infection by bacteria and parasites which occur naturally.

Ground water availability is limited by the extent and thickness of permafrost. The general availability is estimated to be less than 10 gallons per minute (Balding, 1976). However, availability may be much greater in localized ice-free areas.

The diversion of water for sluicing and impoundments for placer mining activities is the major water use in the area. Eight water filings for mining activities in the headwaters of Beaver Creek (on Ophir, Nome, and

Champion creeks) have been recorded. Total water appropriation equals about 20 cubic feet per second. All are for seasonal use and for less than 214 days per year.

Vegetation

Vegetation within the WMNRA is characteristic of the natural vegetation found throughout interior Alaska. Land cover for the Area has been mapped by manual interpretation of Landsat imagery. There are no agricultural areas or areas affected by development, although vegetation along some of the creeks has been disrupted by placer mining. The following discussion describes the major characteristics of each of seven cover types.

ALPINE TUNDRA

High elevation, well-drained treeless areas characterized by dwarf shrubs, forbs, graminoids, and lichens. The vegetation cover varies from 0 to 90 percent. Plants commonly seen include mountain avens, Lapland cassiope, blueberry, dwarf willows, moss campion, lousewort, sedges, and a variety of lichens.

LOW SCRUB

This cover type is usually dominated by dwarf birch, resin birch, willows, blueberry, lowbush cranberry, and other ericaceous shrubs. Near timberline there may be significant quantities of dwarfed white spruce. Higher, drier sites may be dominantly dwarf shrubs. Trees may comprise up to 10 percent of the cover.

TUSSOCKS

Flat to moderately sloping areas with poorly drained soils, supporting a cover of sedge tussocks. This type usually includes scattered grasses and may contain scattered, stunted spruce. Tussocks may be found as an understory for coniferous woodland, coniferous forest, and low scrub.

CONIFEROUS FOREST

Lowland coniferous forest is usually black spruce, with scattered ericaceous shrubs, willows, and willow stringers along drainages. Some areas have scattered larch. Ground cover is usually tussocks, lichens, and mosses. Sphagnum mosses are common on the colder, wetter sites where permafrost is close to the surface. These areas may be transitional to coniferous woodland.

Upland coniferous forest is composed of both black spruce and white spruce. The more commonly seen understory plants include: blueberry, lowbush cranberry, crowberry, Labrador tea, dwarf birch, willows, sedge tussocks, mosses, and lichens.

RIVERINE CONIFEROUS FOREST

These types support stands of large white spruce with occasional deciduous species: paper birch, aspen, balsam poplar, alder, and willow.

MIXED FOREST

This forest type is a mixture of broadleaf and needleleaf trees where each contributes at least 25 to 75 percent of the tree cover. In interior Alaska, this may be black or white spruce, or both, mixed with paper birch or aspen. Valley bottom mixes may include balsam poplar. Understory varies considerably with site. Mixed forest occurs from riverine sites to dry highlands.

CONIFER WOODLAND

This type is usually composed of black spruce with 10 to 25 percent crown cover. Understory vegetation is tussocks with low shrubs such as dwarf birch, blueberry, willows, and Labrador tea. Sphagnum mosses are common. The woodland is laced with stringers of willow and coniferous forest, usually along drainages. This type contains areas of dwarf spruce scrub and areas too sparse to qualify as woodland.

There is no commercial use of vegetation anywhere in the WMNRA. Miners, local residents, and recreationists take small amounts of wood for personal use as fuel. Blueberries and cranberries are used for personal consumption.

No extensive inventory for sensitive or rare plants has been conducted in the Area although small areas with convenient access have been examined by botanists.

Although there are no federally listed Threatened or Endangered plants in Alaska at this time, the BLM has assigned a designation of "sensitive" to some plants that are considered candidate species for T&E listing by the federal government. BLM policy mandates that these plants be accorded the full protection of the Endangered Species Act.

Two rare taxa, Draba paysonii, a small herb, and Oligotrichum falcatum, which is closely related to haircap mosses, have been found near Mount Prindle. Another rare taxon, Andreaeobryum macrosporum, has been found in the White Mountains. Coccocarpia erythroxyli, a lichen usually found in temperate or tropical climates, has also been found in the White Mountains.

Plants which are on BLM/Alaska's sensitive plant list and which may, based on known habitat requirements, occur in the WMNRA are shown in Table 2-2. Whenever a land use action is proposed within one of these habitats, the area should be carefully examined for the existence of the taxa.

SENSITIVE PLANTS WHICH MAY OCCUR IN THE WMNRA

Table 2-2

Name	Known Habitat	Potential Classification
Aster yukonensis	Riverbeds and gravel bars	Threatened
Montia bostockii	Wet alpine meadows and moist centers of frost scars	Endangered
Smelowskia borealis var. villosa	Calcareous screes at high elevations	Threatened
Smelowskia pyriformis	Calcareous screes at high elevations	Endangered
Taraxacum carneocoloratum	Alpine slopes and coarse well-drained slopes	Threatened

Soils

Three soil associations are found within the WMNRA (U.S. Soil Conservation Service, 1979). These are broad associations, identified largely through aerial observations. As such, there may be considerable variation in soil properties within each association. These associations follow:

TYPIC CRYOCHREPTS

High rounded ridges and hills, separated by broad sloping valleys dominate the landscape. Soils in this association formed from a variety of parent materials. The dominant soils on the hills consist of very gravelly material weathered from local rock. In the valleys, the principal soils formed from loamy sediment washed from the surrounding hills. The soil is not suitable for cultivation. This association comprises approximately 30 percent of the Area.

PERGELIC CRYAQUEPTS-PERGELIC CRYOCHREPTS

This association occupies unglaciated steep hills and mountains. Most of the association is above treeline. Most soils were formed in a very gravelly or flaggy colluvial material weathered from bedrock. They are generally shallow on steep side slopes but gradually become deeper toward the base of the slopes. This association is too cold and steep for cultivation and has only scattered areas of trees suitable for harvesting. It comprises approximately 40 percent of the Area.

LITHIC CRYORTHENTS

At higher elevations, the mountains are very steep and rocky, but valleys and lower side slopes are generally less steep. Soils at higher elevations are too shallow over bedrock for ground ice to form. This association comprises approximately 30 percent of the Area.

The entire area is generally underlain by moderately thick to thin permafrost. (Permafrost is ground which remains frozen for two or more years.) Surface disturbance of the insulating vegetation may cause the permafrost to thaw, possibly resulting in local subsidence, slumping, drainage diversion, and erosion.

The effects of permafrost degradation depend upon soil type and topography. For example, ice-rich silt on a slope will be more severely affected than a gravel deposit on level ground. Thawed soil on a slope may be subject to rapid erosion, gullying, mudslides, or solifluction (the slow creep of a soil mass downhill). On level ground, thawing may produce thermokarsts, which are pits formed when underground ice masses melt. Thermokarsts can be quite large and may become ponds or lakes.

Permafrost also affects ground water supplies by blocking the flow of water and slowing the recharging of aquifers. Wells drilled through permafrost will freeze up if not used frequently or protected with a heating device.

Air Quality

There is currently no information on air quality for the area. Because there are few industrial operations in the region it is assumed the only "pollutants" which occur are fugitive dust from unvegetated river bars, forest fire smoke, dust from mining access roads, and smoke from cabins.

Air quality is, therefore, assumed to be excellent, except when smoke from a major fire is in the area. Shifting summer winds will sometimes drift smoke from large fires for many miles in any direction.

Fire

ROLE OF FIRE IN THE ALASKAN ENVIRONMENT

Fire has been a natural force in the Alaskan interior for thousands of years. It is a key environmental factor in these cold-dominated ecosystems. Without fire, organic matter accumulates, the permafrost table rises, and ecosystem productivity declines. Vegetation communities become much less diverse, and their value as wildlife habitat decreases.

Fire rejuvenates these ecosystems by removing some of the insulating organic matter and warming the soil. Nutrients are added both by ash from the fire, and by increased decomposition rates. Vegetative regrowth quickly responds, and the cycle begins again.

An occasional fire may be critical for maintaining the viability of northern ecosystems, yet fire can also be a threat to human life, property, and valued resources. The realization that fire plays an essential ecological role, but also has a destructive potential in relation to human life and values can make the fire management decision process very difficult.

FIRE OCCURRENCE

The presence of fire in the natural ecosystem of interior Alaska has a marked effect on vegetative patterns. Fire occurrence and location, its natural spread, and recent (since 1956) suppression activities also contribute to the increase or decline of many important wildlife habitats and populations. The future management of wildlife in this Area is heavily dependent on the management of fire.

The following analysis of fire occurrence is based on two sources: the computerized records of the BLM Alaska Fire Service, and 1:60,000 color infrared photography.

The computerized records list all known fires in the area now known as the White Mountains NRA from 1956 to 1981. During that period 65 fires occurred, 52 of which were started by lightning from the first of June to the last week of July. Most were suppressed at less than ten acres, eight others went out at one-quarter to five acres. Ninety percent of the total burned acreage (15,690 acres) resulted from two fires, the Alps fire of 1975 and the Beaver Creek fire of 1956.

Prior to 1956, it is likely that no fire suppression action occurred in the WMNRA. From an examination of past fire evidence it appears that in most of the mountainous areas, fires were apparently few in number and small in size. As in recent years, fire occurrence has been much higher in lowland areas.

Based on the best information available it is estimated that at least 52,000 acres burned between 1907 and 1956 in the southern 16 townships of the planning area. About 8,400 acres have burned in this same area since 1956. Fire suppression has apparently caused a large reduction in average annual burned acreage in lowland areas of upper Beaver Creek.

Assuming the potential for future fires in the Area will remain similar, 80 percent will be caused by lightning. Man-caused fire occurrence is likely to increase as mining and other human activities increase.

Large fires are most likely to occur in the southern and western portions of the WMNRA. Throughout much of this area, fuels are continuous, and there are no good natural barriers to fire spread except for the ridge north of Wickersham Dome. An unsuppressed wildfire could reach 50,000 to 60,000 acres in size and could spread outside of the Area to the south. The greatest potential is in the vicinity of Trail, Ophir, and Wickersham

creeks. The burned areas of the 1971 Wickersham and 1975 Alps fires along the southern border of the Area, would prevent fire spread to the southwest of the planning area.

Large fires are also possible in the vicinity of Tabletop Mountain, Nome Creek, and Champion Creek. However, there are extensive stands of deciduous trees on the south facing slopes, south of the planning area, which may slow intensity of a fire and ease its control. Also, vegetation is fairly sparse on the high ridges south of Nome Creek. Fire spread to the north and east would be stopped by the sparsely vegetated ridges.

Vegetation west of the White Mountains is dominated by tussock grasses. The entire length of Beaver Creek would be a fairly good firebreak because tussock tundra fires do not produce major spotfires, and the presence of relatively less flammable vegetation along the river effectively widens the firebreak. Fire spread to the west of Beaver Creek from the latitude of Windy Creek south to Colorado Creek could probably be stopped at the Tolovana River. This is, however, six miles west of the boundaries of the WMNRA. The rest of the planning area does not have a high fire potential. Topography is rugged, and upper elevation fuels are usually too sparse to carry fire. The ridge, along the northern border, which includes Mount Schwatka, is an effective barrier to fire spread to the north.

Access

Two public highways, the Steese and the Elliott, provide access to the vicinity of the WMNRA. The Steese Highway is not paved beyond 44 Mile. The Elliott Highway is paved as far as Wickersham Dome and is maintained all year.

There are no paved roads within the WMNRA. U.S. Creek Road was upgraded during 1983 and provides access for two-wheel drive vehicles as far as Nome Creek. There are many unimproved trails which lead from the highways and into the Area, but few are passable by wheeled vehicles. Most trails were constructed by miners. Some are still used to provide access to claims, but many others are used by recreationists. Use of most trails is seasonal, with the heaviest use occurring during the summer. Some trails are claimed by the State of Alaska as public rights-of-way under Revised Statute 2477. The following is a summary of the major trails and roads in the WMNRA.

1. Chatanika-Beaver Trail (130 miles): This is an old sled trail, constructed in 1931, which was once used to carry mail and freight from the railhead at Chatanika to the village of Beaver on the Yukon. Much of the trail is now grown over with brush. Parts of it may still be used occasionally by recreationists.

2. Colorado Creek Trail (20 miles): This winter trail leaves the Elliott Highway near the Tolovana River and connects with the Chatanika-Beaver Trail at Beaver Creek.

3. White Mountain Summer Trail (21 miles): This is a public hiking trail which is maintained by BLM. It provides access to the Borealis-LeFevre Public Use Cabin on Beaver Creek. Only foot travel is authorized on this trail. Vehicles and horses are sometimes used, however, resulting in damage to the boardwalks which have been built over wet spots.

4. White Mountain Winter Trail (18 miles): This trail provides winter access to the Borealis-LeFevre cabin. It is used by snowmachiners and cross-country skiers.

5. O'Brien Creek Trail (35 miles): This trail begins near Wickersham Dome, crosses Beaver Creek, and goes up O'Brien Creek.

6. Lower Nome Creek Trail (13 miles): This trail and the spur-trails leading off of it provide access to the lower Nome Creek area from the Steese Highway. It was probably built to provide access to mining claims. Because of wet spots, much of the trail is not passable for wheeled vehicles. It is used by hunters and other recreationists and, possibly, miners.

7. Upper Nome Creek Trail, also called U.S. Creek Trail, (8 miles): This is a fairly good trail which leaves the Steese Highway at U.S. Creek and provides access to the mines on upper Nome Creek. It is passable by two-wheel drive vehicles for several miles, but there are a few mudholes near Nome Creek which may require four-wheel drive. The trail continues across Nome Creek to Champion Creek, but this portion is much rougher and is not passable by wheeled vehicles. The Alaska Department of Transportation and Public Facilities upgraded this trail as far as Nome Creek in 1983. The trail has been widened, graded, and surfaced with gravel.

In addition to the above trails, there may be other side-trails or short access trails which have not been described.

Two private airstrips exist along Beaver Creek. They can accommodate only light aircraft. Light aircraft also use gravel bars on Beaver Creek for landing areas, and float planes can land on the lower stretches of the stream. There is also a very rough strip on Lime Peak.

Visual Resources

The WMNRA is dominated by two distinctive elements -- the White Mountains and Beaver Creek. There is also a remarkable diversity of landscape types existing within the area, offering a variety of scenic vistas.

Beaver Creek is the main drainage and flows north into the Yukon River. The major tributaries (Bear, Champion, Nome, Ophir, Trail, Wickersham, and Victoria Creeks) flow through deep, narrow valleys containing good stands of birch, aspen and white spruce on well-drained gravelly soils. A recreationist on Beaver Creek is constantly exposed to the dramatic

views of the sheer white cliffs of the White Mountains. The overall landscape of the White Mountains area has been identified as a scenic complex representing a diversity of striking and distinctive visual characteristics in a contiguous area (Gordon and Shaine, 1979). High hills and scattered peaks comprise a major portion of the WMNRA. Because of this, tundra is the major vegetative type.

Colors throughout most of the summer months are various shades of green. For a brief period in the early summer the tundra blooms, creating a colorful view, especially striking when viewed against rugged mountains of white limestone. Birch and aspen stands turn to gold and orange in the fall, a vivid contrast to the dominant green swath of spruce trees. The alpine zone glows with stringers of gold-colored willow in the fall. For seven months each year snow covers the entire area.

Little of the WMNRA is visible from either the Steese or Elliott Highways. However, some viewpoints can be reached by hiking trails or off-road vehicle trails. Generally, the entire area of the Beaver Creek viewshed and the White Mountains complex has been rated as Class A scenery (BLM Manual 8400).

Cultural and Paleontological Resources

Due to the limited amount of information about cultural and paleontological resources within the WMNRA, it is necessary to supplement that information with ethnographic, archeological and paleontological data from directly adjacent areas.

During the Pleistocene, the WMNRA was geologically part of the unglaciated interior of Beringia. The environment at that time supported large game mammals which, as indicated in other localities, were used by early man. There is a definite potential for discovery of such sites in depositional basins, such as the Victoria Creek drainage. One mammoth site has already been discovered. Another likely location for paleontological material is in the Fossil Creek drainage.

The WMNRA lies within an area utilized by Kutchin Athabaskan people. On the basis of information in the Class I inventory for Beaver Creek, these people used the river, particularly the lower reaches, during the summer, and used the upland caribou ranges in the fall and throughout the winter. Considering the historically very large populations of caribou, finding archeological caribou fences, base hunting camps, and butchering areas might be expected. At least one caribou fence or moose corral has been documented in the White Mountains. Such sites might help to further identify earlier caribou ranges. Where other resources are present, such as chert outcrops in the Victoria Creek drainage, the probabilities are even greater. This region also happens to be one where mineral development proposals have been identified in this EIS. Spring movements of caribou are historically heavy near the upper reaches of O'Brien Creek at the margin of the proposed Semi-Primitive Motorized Management Unit and where access and mineral development are taking place. It appears

that the upland portions of the WMNRA may contain proto- or prehistoric archeological sites where Athabaskan hunters made seasonal use of the country. These areas were also important moose and Dall sheep hunting areas.

Since the turn of the century, most of the mining activity in the WMNRA has occurred at such localities as Victoria, Beaver, Nome, Ophir, Bear, Champion, and Wickersham creeks. Historic structures, artifacts, and trails have been reported in these areas.

National Natural Landmarks and Other Special Areas

The spine of the White Mountains has been recommended by the National Park Service for nomination to the National Natural Landmark program. This spine encompasses approximately 180,000 acres, all contained within the WMNRA. (Proposed Geological and Ecological Natural Landmarks in Interior and Western Alaska, Volume 2, January 1982) Several other special areas that are being proposed for Research Natural Areas are described in the Alternatives (Chapter I) and need not be further discussed.

Subsistence

Subsistence use of certain wildlife and plant species and other resources occurs in the WMNRA although the level of use is low when compared to areas closer to communities where subsistence users live. Certain resources dependent on habitat within the WMNRA are also used by subsistence users located outside the area. The following discussion summarizes both direct subsistence uses within the WMNRA and the indirect subsistence-related considerations involving habitat. Data on the community of Birch Creek are primarily taken from (1) the Alaska Department of Fish and Game publication, Subsistence Land Use in Upper Yukon--Porcupine Communities, Alaska, by Richard A. Caulfield, Technical Paper No. 16, Division of Subsistence, June 1983; (2) BLM staff observations of subsistence resources and usage; (3) conversations with subsistence users of the region; and (4) additional insights gained by contacts with personnel in the Alaska Department of Fish and Game, and other State and federal agencies. There are no recently published data on Beaver Village, but it is possible that residents of Beaver Village occasionally use the lower Beaver Creek similar to Birch Creek Village.

DIRECT SUBSISTENCE USE

The nearest communities are Beaver and Birch Creek, which are Native villages located over 25 miles to the north and northeast of the WMNRA; Livengood, about 18 miles to the west; and Chatanika, about seven miles to the south. There are also certain individuals and families living along or near the Steese and Elliott Highways whose subsistence activities, particularly hunting and trapping, occur to a limited extent in or near the Area. These people and a few trappers based out of Fairbanks are reported at times to be running trap lines up several

creeks within the WMNRA including Beaver, Bear, Ophir, and Fossil. Trapping is also indicated to the west of the WMNRA in the headwaters of the Tolovana River.

Reportedly, residents of Birch Creek Village sporadically hunt moose and bear along Beaver Creek in the vicinity of Victoria Creek (Caulfield, pp. 111-125). In the past, Dall sheep were also hunted for subsistence use in the White Mountains (Caulfield, pp. 112-114).

There is one family which lives within the WMNRA along Beaver Creek at the mouth of Victoria Creek whose subsistence uses, besides hunting and trapping, include localized fishing and collecting of firewood, berries, water for domestic use, and other resources. While most of the latter subsistence activities occur in the near vicinity of their residence, reportedly the majority of their trapping and much of their moose hunting occurs outside of the WMNRA.

Overall, the amount of direct subsistence usage of the WMNRA is thus relatively low, compared to areas closer to established communities where equal or better subsistence resources are found. The one partial exception to this statement is trapping, as noted. However, since it is a wintertime activity, the potential for trapping conflicts with summertime activities, like mining, are insignificant.

HABITAT-RELATED SUBSISTENCE CONSIDERATIONS

The caribou population of the Fortymile herd is an important factor that affects subsistence use in and around the WMNRA. Large numbers of the Fortymile herd have historically migrated from the Fortymile country some 100 miles to the southeast into and across the WMNRA. In the past, portions of the WMNRA were used by caribou for calving and for both winter and summer range. In the past, portions of the WMNRA were used by caribou for calving and for both summer and winter range. However, now that the present herd population is approximately 14,000, the smaller herd usually stays south of the Steese Highway and does not enter the WMNRA. Wolf predation has been cited as one factor contributing to the sharp drop in caribou populations from over 500,000 animals in the 1920s to under 20,000 by the 1940s.

It is believed that if the Fortymile herd continues to increase, caribou will again use the WMNRA and the neighboring Steese National Conservation Area for calving. If or when the ADF&G goal of 50,000 caribou is met, opportunities for subsistence usage of caribou will be enhanced.

Social and Economic Conditions

GENERAL DESCRIPTION

One family resides year-round within the planning unit, near the mouth of Victoria Creek. A few placer miners live on mining claims within the WMNRA but only during the mining season (May through September).

Based on public response to the planning effort, the people outside of the WMNRA who are most likely to be affected by the management of the area are the residents of Fairbanks, Central/Circle Hot Springs, Circle, Livengood, and Birch Creek.

Populations of these communities are shown in Table 2-3.

1980 POPULATION

Table 2-3

Fairbanks North Star Borough	58,983
Central*	36
Circle	81
Birch Creek	32

*Includes the residents of Circle Hot Springs

Source: Bureau of the Census (1980)

Fairbanks, by far the largest of these communities, is also the closest to the WMNRA. It is the trade and transportation center for the interior of Alaska. Fairbanks North Star Borough contains two incorporated cities (Fairbanks and North Pole) and numerous unincorporated surburban and rural communities. Fairbanks is linked to coastal Alaska by paved highways, a railroad, and scheduled air transportation. The area experienced rapid economic and population growth during the construction of the Trans-Alaska Pipeline in the 1970s. Immediately after construction, population decreased somewhat, but the area is now growing again. Much of the Fairbanks economy is still directly or indirectly tied to the oil industry. Other sources of jobs include government (including the military), tourism, transportation, and mining.

The community of Central is located approximately 128 miles northeast of Fairbanks on the Steese Highway. Circle Hot Springs, located about eight miles from Central on a spur road, can be considered part of the Central community. There is no incorporated government in the area.

The Steese Highway is largely unpaved and, in the past, has not been maintained through the winter. During the winter months, Central is accessible only by light aircraft or overland travel via tracked vehicle. Placer mining and tourism are the two principal industries of the area. Both take place mainly during the summer months, when the population of the area increases far beyond the number of permanent residents, perhaps to as high as 300.

Circle lies at the end of the Steese Highway, about 30 miles beyond Central. Like Central, Circle has not had highway access during the winter but has an airstrip. Most of the population is Athabascan. The economy is sustained by the village corporation (set up under the Alaska Native Claims Settlement Act) and a few small businesses, such as a store and air charter service. Hunting, fishing, and trapping also contribute to the well-being of the residents.

Birch Creek is a small Athabascan community located in the Yukon Flats. Birch Creek has no road access whatsoever. It can be reached only by air or by boat via the Yukon River and Birch Creek. Neither Circle nor Birch Creek are incorporated.

MAJOR ECONOMIC FACTORS

There is very little economic activity within the WMNRA itself or in the immediate surrounding area. There are 627 mining claims within the WMNRA, but currently, most are not being mined. In recent years, there have been three or four active placer gold mining operations during the summer months.

Placer gold mining is of considerable importance in the region as a whole, with most activity concentrated in the vicinity of Central. There are between 80 and 90 mining operations in the Central area. All of the miners are independent, relatively small operators. This makes data collection extremely difficult. Gold is commonly sold to Fairbanks buyers for cash, or it may be traded directly for goods and services. However, it is clear that gold production is of significant value. In addition to providing seasonal employment for several hundred people, the placer mining industry contributes to the economies of Circle, Central, and Fairbanks through the purchase of heavy equipment, fuel, supplies, and technical services. Total expenditures by the placer mining industry in Fairbanks in 1982 were estimated to be $31,141,000 (Alaska Department of Commerce and Economic Development, 1983).

Another economic activity which involves the WMNRA is recreation. Recreation use of the WMNRA itself is currently low, probably because of limited access. It is important to the region as a whole, however.

It has been estimated that the recreation industry provides over 1000 jobs in Fairbanks and results in annual expenditures of approximately $27,000,000 (Alaska Department of Natural Resources, 1983). Currently, only a small portion of this can be attributed to the WMNRA.

There is some overlap between the mining and recreation industries. Although some recreationists object to the noise and visual impacts of placer mining, others visit the region specifically because of the opportunity to see gold mines or to engage in recreational mining (gold panning). Also, restaurants, service stations, and other such businesses provide services to both miners and recreationists.

SOCIAL ATTITUDES AND LIFESTYLES

Independence and self-reliance are values which are held in high esteem by most Alaskans. This is especially evident in the rural communities, where the lack of local government is often due to explicit opposition to government rather than lack of population or a tax base.

Almost all interior Alaskans consider outdoor recreation extremely important, but there is disagreement between those who want to maintain primitive recreation opportunities and those who would like development of facilities and improved access.

Hunting and fishing are also regarded as extremely important, both by sportsmen and subsistence users.

CHAPTER III ENVIRONMENTAL CONSEQUENCES

The arrangement of this chapter is similar to that of Chapter I. Potential environmental effects resulting from the scenarios described in Chapter I are discussed first. These effects are general in nature and will vary by degree and specific location of the land use allocation for each alternative. Possible mitigation measures will also be identified. The effects of actions that can be specifically located vary by alternative and will be discussed along with possible mitigation requirements.

An analysis and discussion of ANILCA, Section 810(a) findings is found at the end of each alternative action and is further summarized near the end of the chapter.

Adverse environmental effects which cannot be avoided should the proposed plan be implemented are identified. The relationship between the short-term uses of the environment and the maintenance and enhancement of long-term productivity will also be examined. Finally, irreversible or irretrievable commitments of resources are described.

Description of Impacts Common to All Alternatives, Including the Proposed Plan

RECREATION

The activities required for mineral exploration and development significantly conflict with the protection of primitive recreational values. These recreational values can be affected by mining, especially through new or improved access to mineralized areas. This would be especially noticeable when active or increased mining occurs in areas previously undisturbed. Water quality would be lowered where placer mining occurs. This lowered water quality would impact fishing, availability of potable water, and the ability to enjoy float trips. Dust and noise from active mining operations would adversely impact existing primitive recreational opportunities. Miners and recreationists would compete for favorable campsites in the headwater areas of the Beaver Creek drainage, and there would be disputes as to whether access routes should be maintained to mining or to recreational standards.

Some impacts associated with mining can be mitigated to minimize conflict with recreation management goals and objectives. These include special permit stipulations required for each specific mining operation under 43 CFR 3809. Special attention would be given to (1) timely and effective recontouring and revegetation of disturbed sites to prevent further siltation, water turbidity, and impact to scenic values; (2) requiring the enforcement of EPA and State water quality standards; (3) setting and enforcing more stringent standards where necessary to protect crucial values; (4) disallowing placer mining in some areas where necessary to prevent degradation of water quality and primitive values; and (5)

managing mining-related access to minimize disturbance, especially in primitive and river corridor areas where access to existing valid claims is necessary. A comprehensive monitoring program would be implemented to assure that stipulations were working as they were intended.

Recreational use and development of the recreation resource can cause some change to existing primitive and wilderness values. Coupled with improved access, increased recreational use can be detrimental to the primitive values sought by many recreationists. Campsites and trails may suffer from overuse. Man/bear encounters may increase.

These effects can be mitigated or avoided. A major effort would be made to monitor recreational use to assure that the goals and objectives of the recreation program are being met. Brochures, maps, signs and other public-use information can be developed to educate visitors about minimum- or no-trace camping techniques and about methods of handling bear encounters.

The use of off-road vehicles and aircraft can impact recreational values and resources. ORVs can damage vegetation and destroy the primitive and wilderness values of solitude and undisturbed areas. There also may be conflicts between recreation users favoring either motorized or non-motorized recreational opportunities. Low-flying aircraft can have a negative impact on those people enjoying a primitive, non-motorized, recreational experience.

The restriction or prohibition of ORVs and low-flying aircraft can mitigate some of these impacts. Some areas can be closed or limited to ORV use. Trails and facilities for ORV use can be developed in other areas to avoid conflict with primitive values. Heliports and landing strips can be designed and located to minimize impacts. ORV and aircraft users can be educated concerning these conflicts and the appropriate use of their vehicles.

The use of fire suppression equipment, especially bulldozers, can have a significant impact on primitive values. Fire lines not only adversely impact the area through erosion and lowered visual values, but they often provide access for unrestricted ORV use. Short-term impacts on primitive values can also result from allowing large areas to burn with little or no suppression efforts. Although fire is a natural process, the impact of fires in pristine areas is often viewed negatively by users. While the impact from fires is a relatively short-term effect, the impact from some fire suppression techniques and the associated access they provide may have long-term impacts on primitive values.

To mitigate these impacts, fire lines can be rehabilitated to avoid erosion damage and can be made unusable to subsequent ORV use. Construction of new recreation facilities may require revision of existing fire plans for the WMNRA.

Construction of roads, utility and transportation right-of-way, and material sites can impact recreational resources, primarily primitive values. Conversely, the lack of access through semi-primitive areas and non-federal land to trailheads and to river put-ins will impact recreational use. Installation of communication sites or other developments may impact or intrude on primitive values.

The issuance of rights-of-way or use permits for development within the area can be closely screened to assure compliance with stated recreational goals and objectives. Cooperative agreements with other agencies and private inholders can be completed to assure public access for recreational use.

WILDLIFE

There are six program areas with the potential to impact terrestrial wildlife resources (habitat, populations, and human use opportunities). These programs are recreation, off-road vehicles, and aircraft, fire management, rights-of-way and other realty actions, the wildlife habitat program itself, and mining.

The degree of impact on wildlife from various land uses depends on four major factors. These factors are location, timing, extent, and rehabilitation/restoration of the proposed use.

Recreational activities including the construction of trails, campgrounds, and public use cabins would result in some direct habitat loss. Increased visitor use in the overall area and in association with recreational facilities can alter or preclude wildlife use and contribute to an increase in human/bear conflicts. More facilities and improved recreational access would facilitate a greater opportunity for human use of the wildlife resource as well as a demand for increased wildlife populations.

Management controls to avoid or minimize recreation-related adverse effects include (1) incorporation of wildlife input into the recreation site planning process to avoid installation of facilities and high visitor use in crucial use areas, and (2) monitoring visitor use to provide early indication of changing wildlife use patterns. Maintenance and design of recreation facilities to minimize attraction of bears should be incorporated into the recreation site planning process. Public awareness of bear behavior through brochures or other means would assist the public in avoiding bear conflicts. Regulation of visitor use would be implemented as necessary to meet the wildlife goals and objectives.

Off-road vehicles and low-altitude aircraft use can result in disruption of normal wildlife behavior and use patterns. Specific trails, roads, airstrips or airports that are heavily used may alter or preclude wildlife use in the immediate vicinity. Use of off-road vehicles and aircraft would facilitate a greater opportunity for human use of the wildlife resource.

Management controls to avoid or minimize the adverse effects on crucial wildlife habitats at crucial times include restricting ORV use and requiring a low-altitude aircraft to maintain a minimum of 1,500-foot altitude and 1 mile horizontal distance from the area. Incorporation of wildlife data into the site planning process of trails, roads, airstrips or airports would minimize conflicts with wildlife.

The use of aircraft in support of fire suppression activities can result in a short-term disruption of wildlife behavior and use patterns. Fire benefits many important wildlife habitats through increased diversity and forage quality. Limiting suppression activities, including aircraft use, and allowing fire to burn naturally whenever possible, result in long-term habitat improvement.

Construction, maintenance, and use of permanent access routes and the necessary material sites would result in direct habitat loss and may reduce or preclude wildlife use in the immediate area. Additionally, heavily-used roads may disrupt normal wildlife movements and result in areas not being available for wildlife use. Remote communication facilities are supported and monitored by aircraft, which may reduce wildlife use in the vicinity of the site. Incidental uses such as temporary camps may result in short-term disruption of wildlife use with minor long-term habitat loss. Increased access via permanent roads and improved trails would facilitate a greater opportunity for human use of the wildlife resources.

Management controls to avoid or minimize access to facilities and incidental uses include incorporating wildlife mitigation measures into the right-of-way or permit process to avoid wildlife conflicts.

Actions of the wildlife habitat management program could include the use of biotelemetry, observation from low-level aircraft, temporary field camps, and prescribed fire. No effect on overall populations is expected from tagging and monitoring activities. Short-term disruption of wildlife can occur during monitoring as a result of aircraft use. Short-term alteration of wildlife use patterns may occur in the immediate vicinity of temporary field camps. Prescribed burning would result in long-term habitat improvement. Short-term air quality and visibility degradation would occur.

Management controls to avoid or minimize possible impacts of the wildlife habitat program include conducting work at locations and times to avoid crucial habitats and time periods. In addition, all procedures and means necessary to avoid escape of a prescribed fire would be incorporated and used to minimize possible adverse effects on resource values.

Mineral development activities have the greatest potential for fish and wildlife conflicts. Exploration may result in localized habitat loss. Use of ORVs and aircraft and establishment of camps may, on the short

term, disrupt or preclude wildlife use in the vicinity. Access requirements for mineral activities can result in direct habitat loss and indirect long-term effects because of increased use. Conversely, access to previously inaccessible areas would facilitate a greater opportunity for human use of the wildlife resource as well as mineral resources in the overall area. Unavoidable adverse effects result from mineral development and associated access routes, camps, mining pits, and tailings disposal areas. Additionally, wildlife use in the vicinity of these areas may be altered, or precluded.

Management controls to avoid or mitigate adverse effects of mineral exploration, access and development impacts may include withdrawing crucial habitats from new placer and other types of mining, aerial and surface use restrictions in crucial habitat areas during crucial times, and consolidation of mineral access routes into designated corridors. Portions of sensitive caribou and Dall sheep crucial habitats could be withdrawn from future mineral entry. Site-specific mitigation plans could be required for proposals in caribou and Dall sheep crucial habitats. Mitigation plans would include measures to avoid, mitigate or rehabilitate adverse effects and would be cooperatively reviewed by BLM and ADF&G. Restriction of surface use in and adjacent to crucial habitats is expected to minimize disruption of wildlife use.

FISH

Beaver Creek and its tributaries constitute the prime areas of fish habitat in the WMNRA. No lakes of significance are located in the Area. Habitat is essentially undisturbed except for Nome Creek where past gold mining has physically altered the stream bed and adjacent riparian vegetation. Present gold mining in the upper end of Nome Creek causes a visually noticeable increase in stream turbidity in Nome Creek and in Beaver Creek as far as 50 miles downstream from Nome Creek. Sport fishing success for arctic grayling in Beaver Creek and its larger tributaries is very good during summer months when water is low and clear. When the upper sections of Beaver Creek and Nome Creek have increased turbidity levels from placer mining, fishing opportunities decline. Beaver Creek is not on the Alaska Department of Fish and Game Anadromous Stream List. However, Chum and King salmon are present in Beaver Creek as far upstream as Victoria Creek and occassionally farther. Winter water flows in Beaver Creek are extremely low and overwintering areas are quite restricted.

There are five programs with the potential to impact fishery resources, i.e., habitat, populations, or use. These programs are recreation, fire management, realty, forestry, and minerals.

The recreational use of ORVs could impact fishery resources to a limited degree. The impacts would result from in-stream use of vehicles and from the erosion of trails with subsequent increased levels of stream siltation and turbidity. Anticipated recreational use of ORVs is not expected to measurably impair fish habitat. No irreversible or

irretrievable commitment of resources would occur and no unavoidable adverse effects would occur. Intensive ORV use could cause localized, short-term impacts. Problem areas can be successfully reclaimed by application of standard land-reclamation practices.

Suction dredging by recreationists would cause unavoidable short-term adverse impacts. Impacts of dredging are physical alteration of the stream bed, increased stream water turbidity, and destruction of spawning beds and deposited eggs.

Impacts to fishery resources from the fire management program can result from the cumulative effects of fire and suppression activities. Severe fires can cause the destruction of vegetation and allow erosion of soils, especially on steep slopes. In some cases, fires burn through riparian areas, thereby killing trees on the stream banks. This can later result in streams clogged with debris and windfall as the dead trees topple into the creeks. Such occurrences are rare and not expected to be a problem. If such a fire does occur, the impacts may be unavoidable.

Fire suppression activities may cause negative impacts, such as fire line construction causing soil erosion and stream siltation, and application of chemical retardants that can be toxic to aquatic life.

Fire suppression activities are governed by stipulations designed to minimize impacts to other resources. Stipulations on fire line construction and rehabilitation are designed to prevent erosion. There are no unavoidable adverse impacts except where permafrost erosion is extreme. Most impacts would be short-term and the long-term productivity of fish habitat would not be affected. There would be no irreversible or irretrievable commitment of resources caused by any aspect of this program.

Realty actions are usually at the request of the general public or other governmental agencies. The level of realty actions is influenced by the alternative selected. Road building and attendent needs for construction gravel would be most likely to cause impacts to fish habitat and may open areas to increased human use which is now light because of difficult access. Gravel removal from streams usually results in more adverse impacts than gravel removal from upland pits. Techniques minimizing impacts to stream beds or riparian areas and assuring fish passage can be employed to offset the effects, and such techniques are usually stipulated as conditions of permits or rights-of-way. Impacts can be short- or long-term, depending on the scope and duration of the activity. Siltation, increased stream turbidity and physical disturbance can be minimized in almost all cases. No major unavoidable impacts are expected.

Forest harvest practices have resulted in significant long-term damage to fishery resources in many areas, but large scale operations are not anticipated with any alternative for the life of this plan.

Fisheries impacts from the mining of lode minerals result from road development, mine pit location, overburden and spoil placement, and mill site location relative to waterbodies. The construction of roads can cause erosion and siltation impacts and the faulty design of stream crossings can adversely impact fish movement and migration. Use of riparian area gravel sources can result in loss of the quality spawning-gravel areas. The erosion and/or leaching of overburden and spoil sometimes results in introducing toxic materials into aquatic environments. Water run-off from mill sites can cause oil, fuels, soil, or other materials to be introduced into aquatic environments. These effects can be mitigated with preventive measures and corrected by effective rehabilitation.

Potential problems as detailed above and in other sections can be resolved through application of development techniques designed to mitigate impacts to aquatic and other resources. Short-term unavoidable impacts may occur during early construction phases and would center primarily around erosion problems before stabilization took place. There should be no irretrievable commitment of fishery resources.

Oil and gas exploration can result in some impacts. Seismic explosions can kill fish or their eggs if conducted too close to waterbodies. Crossing streams with heavy equipment can result in localized problems relating to destruction of stream banks. Winter construction of ice roads would cause a loss of water in fish overwintering areas, since water is in very short supply in Beaver Creek during winter.

The only unavoidable adverse impacts from oil and gas exploration would be limited to vegetation disturbance, provided there is no industrial use of stream water during the winter. Fish overwintering areas are limited to a few areas, and they depend on the small amount of ground water which enters the major streams. Industrial use of stream water during winter could have serious impacts on fish populations. Other impacts would be short-term and could be mitigated. There would be no irreversible or irretrievable commitment of resources and no impacts on long-term productivity.

Placer mining presently occurs on valid and existing claims and will continue with all alternatives. The general impacts of placer mining are (1) stream bed destruction with long-term loss of physical habitat, (2) increased downstream turbidity causing decreased light for algae production and inhibition of feeding activity of fish, (3) increased siltation, causing silt to be deposited over gravels important for the production of aquatic invertebrates and to the spawning areas for fish, and (4) water chemistry changes, including the introduction of abnormally high levels of toxic heavy metals.

Impacts may be short- or long-term depending on the success of reclamation procedures, specific location of the mined area, and the size of the mining operations.

Many impacts may be extremely long-term. In the case of certain massive stream bed changes and alterations, adverse impacts could be so long-lasting that they could be considered as irretrievable commitments of the resource.

Impacts directly associated with mining are related to the area actually occupied and the area where increased human activity causes an indirect effect. Table 3-1 displays a summary of the extent of mining areas that might be physically occupied under the alternative plans.

IMPACTS UPON MINERALS

Mining and mineral development is adversely affected by land allocations or regulatory restrictions. These effects are summarized below.

1. Closure of lands to mineral development. A land withdrawal precludes new mineral exploration and development. Miners and companies do not explore for minerals where there is no opportunity to develop the resource.

2. Additional cost incurred by existing operations to meet regulatory requirements. Stipulations on water quality, reclamation and mining practices will add costs that could make mining economically impractical. This would be a potential loss of income to miners and the Fairbanks economy.

3. Seasonal restrictions will adversely affect the profit of any industry which normally works only four months during the year.

4. Access restrictions will raise the cost of getting to the mine site. Operators will have to plan a season in advance. This will preclude the use of some equipment and dictate the size of the operation. Again, some operators might find it impractical to continue to operate.

PROJECTION OF POTENTIAL MINING DISTURBANCES
BY ALTERNATIVE

Table 3-1

Change	Agent	Proposed Plan	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Yearly Placer Claims	Active Operations	5	5	5	18	18	18
	Acres Disturbed	25	25	25	90	90	90
Lode Claims	Active Operations	0	0	0	3	6	3
	Acres Disturbed	60	0	0	180	360	220
Roads	Miles	42	30	30	68	88	75
	Acres	200	55	55	340	461	400
Total Acres Disturbed		285	80	80	610	911	710

At present, there are 627 claims in the WMNRA, 427 of which are in litigation because the annual assessment affidavit was not filed in time. Placer mining is presently active on 15 acres. The legislation which established the WMNRA closed the area to all new mineral location, but did provide for a mineral leasing program.

The area of indirect influence may well exceed the acres shown. The grand total of direct and indirect effects is a function of location, timing, extent of the mining operation and the specfic non-mineral resource involved. It also includes some of the disturbed acreage, especially the lode claims, which would be totaled over an estimated 10 year period.

WATER RESOURCES

There are four activities which have the potential to impact the water resources of the Area. These are minerals, ORV access, forestry, and

fire management. All impacts from these activities depend on the degree of use or development, and the location of the activity. Most of the adverse impacts can be mitigated through management practices, application of new technology, or regulation. Most of the impacts would be short-term in nature and not result in an irretrievable commitment of resource value.

It has been determined that placer mining, using current technology, causes adverse impacts on the water resources. Most of these impacts can be mitigated to some degree, but there are unavoidable adverse effects. The degradation (1) is due to soil and organic particles or naturally occurring toxic materials which remain suspended or dissolved in the waters in sluice boxes, and (2) due to erosion of disturbed areas. Table 3-2 is a summary of placer mining effects taken from a study conducted in 1981. The last locations (tailrace and 500' downstream) indicate the quality of water which is returned to the environment from operations with settling ponds and those without ponds, respectively. The average turbidity increase for treated settling pond water is about 1,700 Nephelometric Turbidity Units, while untreated tailrace water increased by approximately 4,00 NTUs. The effects of introducing turbid waters into a stream system become less noticeable in large streams where the effects are diluted by clear water.

Possible management controls to mitigate the adverse effects of placer mining include water recycling, settling ponds, material segregation, and reclamation of disturbed ground. These, and other practices, can substantially mitigate the effects of placer mining by removing most of the settleable solids. However, there is currently no economically feasible method of removing all particles from the water. Colloidal material will remain in the water, increasing the turbidity. This is an unavoidable adverse effect of placer mining.

Mining activity also results in onsite deterioration of watershed conditions. This also results in the introduction of sediment to stream channels due to run-off and stream channel erosion. This effect can be adequately mitigated through proper rehabilitation or reclamation of disturbed areas.

Development of upland minerals would result in onsite watershed deterioration, withdrawal of water from natural waterways, and possible leaching from tailing ponds.

Onsite watershed deterioration would result in erosion of disturbed areas due to run-off and possible interuption of ground water systems. Withdrawal of water from natural waterways would reduce the water available for dilution and other in-stream uses such as fisheries and recreation. Leaching from tailing ponds can create severe water quality problems from toxic compounds and heavy metals being introduced to natural waterways and ground water. Mitigation of adverse impacts from lode mining should include run-off control structures, timing of water withdrawals, and proper design and location of the mining and milling operation.

RANGES AND MEANS OF MEASURED PARAMETERS ABOVE,
WITHIN, AND BELOW PLACER MINES

Table 3-2

Location	Dissolved Oxygen, p.p.m.	Percent Saturation	Temperature °C	pH, pH Units	Settleable Solids ml/l	Total Suspended Solids mg/l	Turbidity NTU	
	14.0	111	11	7.7	0.1	67	55	Max
Above	11.8	97	7	7.1	0.1	17	15	Mean
Sluice	9.8	86	3	6.0	0.1	1.1	1.0	Min.
	1.0	7	2.0	0.5	0.0	15	16	Std Dev.
	13.0	106	12	8.2	240.0	69,400	18,800	Max.
Below	11.2	95	8	6.8	42.0	17,500	7,700	Mean
Sluice	8.2	73	5	5.6	4.0	1,160	1,800	Min.
	1.1	8	2	0.6	54.0	194,700	4,200	Std. Dev.
	12.5	105	12	7.5	160.0	33,200	13,400	Max.
Pond	10.6	92	9	6.7	28.0	14,700	6,700	Mean
Influent	8.5	77	5	5.7	2.0	2,230	1,200	Min.
	1.1	8	2	0.6	37.0	9,870	3,500	Std. Dev.
	11.9	100	12	7.8	32	25,700	8,200	Max.
Pond	10.3	90	10	6.9	5.0	3,940	3,000	Mean
Effluent	7.9	75	5	5.6	0.1	410	160	Min.
	1.1	7	2	0.6	9.0	6,660	2,600	Std. Dev.
500'	12.2	98	12	7.6	4.0	6,020	6,400	Max.
Down-	10.7	92	9	6.9	1.1	1,400	1,700	Mean
stream	9.5	80	4	5.6	0.1	2.2	7.8	Min.
w/pond	0.8	5	2	0.6	1.4	1,630	1,400	Std. Dev.
	12.2	100	12	8.3	40	28,000	10,800	Max.
Tail-	10.7	91	8	7.1	10.3	7,310	4,000	Mean
race	8.3	75	5	6.3	1.5	500	1,600	Min.
wo/pond	0.9	6	2	0.6	10.7	7,480	2,900	Std. Dev.

ORV use in, and access into, an area for mining or recreation purposes, can have either a positive or negative effect on the water resources. Uncontrolled heavy use of light ORVs during summer months in one area can lead to severe watershed degradation and surface disturbance. Erosion from run-off in disturbed areas causes increased siltation and degraded water quality in natural waterways and riparian areas. Cross-country movement of heavy equipment for mining operations during summer months also leads to the same problems. In contrast, developed road access such as U.S. Creek Road, helps reduce impacts on the watershed by providing a stable road bed for vehicle movement.

Use of ORVs between freezeup and breakup during periods of adequate snow cover will have no effect on water resources. Mitigation of adverse impacts due to access may consist of monitoring and controlling ORV use areas, proper location and construction of roads or trails, limiting cross country travel to winter months, and closing areas to surface uses.

Forestry practices for the harvest of wood products to be used as firewood or house logs has the potential for major impacts on water resources. The two major concerns would be stream siltation from access and harvest operations, and the introduction of debris and slash into the stream channel. Both of these impacts can be mitigated or avoided by proper timber removal practices, provision of setbacks from stream banks, and seasonal use restrictions.

Two aspects of fire management can impact the water resources. First, there can be impacts as a result of the burn, such as increased erosion and introduction of ash and debris to stream channels. Second, fire suppression activities have the potential of creating a far greater impact. Use of equipment can disrupt the ground vegetation, thus increasing erosion and sedimentation. Both impacts can raise the sediment level in the streams and alter the water quality. These impacts can be mitigated by limiting fire suppression activities and requiring equipment setbacks from riparian areas and stream channels.

VISUAL RESOURCES

Scenic quality can be affected by other resource uses: mineral development, realty actions, off-road vehicles, recreation, and fire management.

Mineral development would probably have the most significant adverse impact on scenic quality, although it can be restricted to localized areas. Surface-disturbing activities that would result from road or trail construction, seismic lines, camp construction, and the actual mining or prospecting activity, could seriously degrade the scenic quality of a given area. Area or site impacts such as construction and mining camps can be significantly mitigated through proper site design and rehabilitation. Linear disturbances on the viewshed such as roads, trails, or seismic lines would be more difficult to mitigate since they would traverse large expanses of the presently untrammeled landscape.

Indirect effects on scenic quality are most likely to occur as cumulative impacts. An individual project may be satisfactorily mitigated through project planning and site rehabilitation, but several similar activities occurring over a given area may have cumulative effects that are unacceptable.

The impacts of realty actions are similar to those described for mineral development, and include roads and trails established by rights-of-way. Other activities such as communication sites, utility lines, or temporary and permanent facilities cause visual degradation. Communication sites and facility developments create impacts that generally are easier to mitigate by proper location, design, and construction of the site. Utility lines result in linear visual impacts similar to road or trail development and are difficult to mitigate.

The visual impacts resulting from off-road vehicle use are the creations of new lines in a natural landscape. Use of established trails is generally acceptable except when this results in additional surface disturbance. Other established trails may need to be relocated, rehabilitated or closed to prevent further damage. Indiscriminate use of ORVs, including those of less than 1,500 pounds GVW, may result in permanent new trails or surface disturbance.

Recreation may impact scenic quality through development of poorly located, designed, constructed, and maintained facilities and trails. Even well-located and well-designed recreational facilities may impact scenic quality in some areas, such as primitive areas. Long-term commitments of the existing primitive and wilderness values may result.

Fire is generally considered to have a long-term positive effect on scenic quality as it ultimately adds to the diversity of the overall landscape. Short-term negative effects would result from areas blackened by fire, especially with a large, multi-thousand-acre burn. Significant impacts can result from fire suppression activities such as fire lines cut by heavy equipment, which can expose mineral soil to erosive forces and encourage permafrost degradation.

CULTURAL AND PALEONTOLOGICAL RESOURCES

Potential impacts from the alternatives are difficult to assess as there are no known cultural resources in the WMNRA at this time. Only two inventories, one consisting of a single cave examination and the other consisting of a three-day field examination, have been conducted. Despite this, historic accounts, trails, ethnographic material, and oral histories revealed in the Class I literature search that the WMNRA has been used by man in the past.

Development of access systems and recreational facilities such as trails may result in direct impacts to cultural and paleontological resources which can be mitigated through site-specific Class III inventories.

Indirect impacts, such as vandalism and theft, may occur as a result of increased use in the area of identified, as well as unidentified, resources.

Any destruction of a cultural resource is an irreversible commitment of nonrenewable resources and, in addition to an immediate loss of materials and information, may result in a loss in our understanding of the cultural heritage of the region.

SUBSISTENCE

The overall goals for the WMNRA are to provide for outdoor recreational opportunities in a primitive and semi-primitive atmosphere; to protect the wild and scenic qualities of Beaver Creek, including water quality; and to provide for other uses when they would be compatible with primitive or semi-primitive recreation. Ongoing, relatively low levels of subsistence activities occurring within the WMNRA do not fundamentally conflict with, and are not significantly restricted by, these management goals.

Specific Impacts by Alternatives

THE PROPOSED PLAN

Recreation

Recreational opportunities will remain largely unchanged. Leaving the WMNRA closed to new placer leasing and opening only 44.5 percent for lode leasing significantly reduces the potential for impacts from new mineral activities. Stringent application of Surface Management Regulations on both lode leasing and valid existing placer claims would minimize impacts in terms of aesthetics and water quality. Site-specific impacts would remain, but long-term effects could be substantially reduced through good reclamation.

Development of new roads and trails and a system of public-use cabins may have a negative impact on existing primitive and wilderness recreational opportunities for some users. Trail improvements and cabins would be designed to compliment the primitive character of this backcountry.

Access into the Primitive Management Unit by snowmachines would have positive and negative impacts on primitive recreational opportunities. Having packed snow on winter trails for cross-country skiing would be a positive effect for most users, but the noise associated with snowmachines would be a negative effect. Lack of concentrated use by either user group should keep these impacts/conflicts to a minimum. Should use increase significantly, segregating uses would mitigate the conflict.

Wildlife

Impacts from placer mining activity on existing claims will result in the short-term loss of approximately 80 acres or more of late winter range in Nome, Moose, Bear, Ophir, and Nome Creeks. Lode mining development in the headwaters area of Ray and O'Brien Creeks would result in direct loss of at least 80 acres of caribou calving areas and movement routes and Dall sheep summer range. Access requirements for placer and hardrock mining activities would result in another 145 acres of habitat loss. Unavoidable adverse effects from the loss of 285 total acres of habitat (as a direct result of mining activities in these areas) will not result in a significant reduction in caribou, moose or Dall sheep populations. Impacts resulting from increased visitor use in association with roads and trails could be minimized by closing the area to ORVs if visitor-use levels increase to the point of disrupting or precluding normal wildlife use in the area.

Fish

It is likely that there would be some unavoidable adverse impacts to fishery resources from the onsite physical disturbance of the stream bed on placer claims in the Nome, Bear, Quartz, and Champion Creek areas. Maximum development predicted would be about 3,500 feet of stream bed per year. It is not known what the specific on-site impacts may be from this development since fishery inventories are not available for these tributary streams of Beaver Creek. Potential impacts include short-term and long-term loss of spawning or rearing habitat for arctic grayling due to (1) in-stream physical disturbance (2) loss or decrease of food production (aquatic invertebrates) in disturbed stream segments, and (3) interference with fish migration or movements to seasonal-use areas. It is not possible to determine the approximate scope or magnitude of these impacts to the overall Beaver Creek fish population and sport fishing (for example, the impact to Beaver Creek sport fishery by removal of upstream grayling spawning or rearing habitat). It is unlikely that placer mining in these areas would cause significant losses to the overall Beaver Creek fishery. (This analysis assumes that stream and riparian areas would be rehabilitated after disturbance or alteration.)

The management plan for this alternative has base line stream inventories planned in the upper Beaver Creek watershed to more accurately monitor impacts and develop site-specific mitigating measures. Significant impact to fish production and the sport fishery in mainstem Beaver Creek can be avoided by requiring mine operators to keep water discharge within the established limits for turbidity and settleable solids. (See water resources section for a discussion of these water quality requirements.) There should be no irreversible commitment of resources if proper reclamation procedures are followed.

There should be no long-term adverse impacts from upland mineral development in the Roy Creek area. Short-term impacts could occur, but they should not significantly impair fish populations nor restrict fishing opportunity.

Rehabilitation of Nome Creek under the proposed plan would improve fish populations of Nome Creek and probably the overall Beaver Creek population as well. Improvement in the Nome Creek fishery would enhance the overall sport fishing opportunity in the area, assuming habitat improvement is coupled with access improvement.

Stipulations to mitigate the impacts of development on fishery resources are listed in Appendix D.

Minerals

The proposed plan would limit placer gold development to existing claims. Lode deposits, oil and gas, and nonenergy minerals would be open to leasing on 445,000 acres of the WMNRA.

Under this alternative, it is predicted that including access, five placer claims would total 80 acres of disturbance. Thirty miles of roads would be used to gain access to these claims, which are predominantly stream placers, rather than placer claims located on benches above the stream. Two operations would be on upper Nome Creek, but activities are expected to terminate in two years. Two other operations would be on Bear and Champion Creeks, and one each on Nome/Moose Creek tailings, Ophir Creek, and Quartz Creek. Ten miles of new road would be needed for the Quartz Creek development.

A lode mine may be developed in the Roy Creek area, part of the Mount Prindle complex. This development might require 60 acres of land at the mine and mill site and 12 miles of road, 50 feet in width, for access from the Lower Nome, Bear, Champion, and Ophir Creeks. Total area required for this development is 133 acres.

Other than existing placer claims, no new placer mining would occur. Growth of the placer gold mining industry would be curtailed. There would be no new land upon which to expand beyond valid existing rights.

Little or no exploration by miners is expected in the closed areas. When there is no opportunity to develop a deposit, there is no incentive to explore.

The small operator would be required to lease all previously locatable minerals. This may increase the administrative cost to the operator because of the permit application process.

Costs would increase from 10 percent to 100 percent to operate placer gold mining operations. Cost increases would be associated primarily with meeting the water quality standards and reclamation requirements. Some miners would abandon the area in the face of the proposed restrictions.

Measures to mitigate and reduce the impacts of mining on the landscape are listed below.

(1) Administration and enforcement of Surface Management Regulations
(2) Compliance with State and federal water quality standards
(3) Use of well-designed, functional, containment ponds for settleable solids
(4) Use of floculants to remove colloidal particles
(5) Total recycling of water by placer mining with no discharge to stream
(6) Wintertime access for movement of heavy equipment to mine sites
(7) Recontouring of mined areas, according to a reclamation plan
(8) Revegetation of disturbed areas
(9) Proper location and design of access roads and airstrips
(10) Reclamation plans and detailed plans of operations

Water Resources

All placer mining operations in the WMNRA would be subject to management control so that effluent discharge would not exceed the current limits of 0.7 milliliters per liter of settleable solids and a 25 NTU increase in turbidity over natural conditions. This would require operations to employ wastewater treatment technology that generally has not been used in this region. There would be no significant impact on the water quality of Beaver Creek NWR when all mining operations in the headwaters and tributary streams are complying with these standards. Even with sophisticated mining techniques, these operations would still create onsite disturbances of stream channels and riparian areas, resulting in localized erosion and turbidity problems. There would be times, such as during breakup or flood conditions, when flushing of sediments from disturbed areas would cause increased turbidity in Beaver Creek, but this would be a short-term impact.

Development of a lode mining operation in the Roy Creek area should have minimal impact on the water resources. Properly designed and placed tailing ponds and proper timing of water withdrawals should mitigate any adverse impacts which may occur. If such operations are developed, the Lower Nome Creek Road would have to be upgraded to a gravel road. This would improve the condition of the upland watershed and reduce the erosion from heavy equipment traveling on the unimproved trail.

Restrictions on ORV size and management controls on cross country travel by heavy vehicles would help prevent upland watershed disturbance and erosion. Sedimentation and water quality degradation in the stream channels would not be a significant impact from ORV use. There should be little impact from fire suppression except for localized watershed disturbance and resultant erosion if heavy equipment is required during the suppression activities. These impacts can be successfully mitigated by post-suppression rehabilitation projects. There would be no significant impact on resources from the local use of wood products for fuel or construction.

Summary of Expected Impacts

(1) Short-term turbidity levels in Beaver Creek NWR noticeable as far as the Big Bend during breakup and flooding. Mitigation can be accomplished through rehabilitation of disturbed areas.

(2) On-site erosion and stream channel degradation at mining operations. Mitigation measures include rehabilitation, reclamation, and run-off control structures.

(3) On-site watershed degradation and erosion from lode mining.

There should be no long-term irreversible or irretrievable commitment of water resources under this alternative.

Vegetation

The major impact on vegetation is likely to be caused by the change from full suppression of all fires to fire management based on a variety of attack levels. In the areas where some fires are permitted to burn, the gradual shift to climax communities, which is now occurring, would be slowed or prevented. The environmental impacts of fire management are described in greater detail in the Alaska Interagency Fire Management Plan: Upper Yukon-Tanana Planning Area.

Opening areas to mineral leasing could have an impact on vegetation, if valuable mineral deposits are discovered and developed. Mining requires clearing of vegetation, but such clearings would be relatively small in relation to the entire area, even with the maximum amount of mineral development considered likely. Adverse impacts can be mitigated by Surface Management Regulations and mineral leasing regulations. With proper reclamation, there would be no irreversible commitments of resources. The construction of roads, trails, and recreational facilities would cause some destruction of vegetation. Under this alternative, such damage is not expected to be significant and could be mitigated by proper project design and revegetation of disturbed areas.

This alternative would not lead to any significant, unavoidable, adverse impacts or irreversible commitments to vegetation resources. Long-term productivity of vegetation (especially as an element of wildlife habitat) would be improved by fire management, although there may be a small, short-term loss of useable timber.

Soils

Localized soil disturbance would occur at a few sites, such as recreation facilities, access roads, or mines. Soil erosion at such sites can be prevented through proper design or site reclamation and is not expected to constitute a significant problem.

Soil disturbance from ORV use is not expected to be significant, since over half of the WMNRA would be closed to ORVs, and the closed area includes some of the steepest and most erosion-susceptible soils. In areas open to use of light ORVs, the monitoring program would detect problems which could arise from overuse of a single area, and would enable restrictions to be implemented before serious damage occurs.

Air Quality

There would be no significant effects on air quality. Changes in fire management may result in more smoke during some fire seasons, and road construction, vehicle use, or mineral development may create dust over very small areas. None of these activities are likely to endanger other resources or human health.

Visual Resources

Mining is the major activity which has affected and would continue to affect visual resources. Muddy water and other visual intrusions caused by mining can be partially mitigated through visual analysis and design, reclamation, and other measures; but there would be some unavoidable adverse impacts. These impacts would be limited to existing placer mining claims under this alternative and some of the long-term impacts can be alleviated by reclamation. Lode mining operations would cause additional long-term impacts. These impacts can be mitigated by providing optimum opportunity to design and locate facilities so they blend with the existing landscape.

Impacts should be less significant in areas where past mining activities have already altered the landscape character. Impacts would be most significant in previously undisturbed drainages. This would be most likely to occur in the Bear, Champion, and Quartz creeks' drainages and, to a lesser degree, the Ophir Creek drainage. Site-specific impacts would be significant during the actual mining, but long-term effects could be substantially reduced as a result of good reclamation procedures.

Other surface-disturbing activities, including use of off-road vehicles for hunting, recreation, mining, or seismic work may also impact scenic quality by causing increased erosion and introducing new lines of disturbance uncharacteristic to the landscape.

Cultural and Paleontological Resources

The impacts of the Proposed Plan are described under "Impacts Common to All Alternatives."

Land Status and Access

Land status would not change significantly as a result of this plan.

Surface access to the lower Nome Creek area would be improved and air access to Victoria Creek would be improved.

Social and Economic Conditions

The management actions which have potential for the greatest social or economic impacts are those relating to recreation and minerals. Immediate impacts would be negligible, but could be of importance over a period of years.

Improved access, along with the development of some recreational facilities, is likely to increase recreational use of the WMNRA. This increase in use would be slight for the first few years and would make no substantial economic contribution to any communities in the area. It would be a social benefit to those people who seek the type of recreational opportunities which would be provided. If the area becomes more widely known and more popular among recreationists, use could increase enough to provide economic benefits to the region, principally to existing outfitters and suppliers in the Fairbanks area. Some employment could be generated for guides and charter pilots working in the region.

The initial impact to minerals would be negative, since no new ground would be available for leasing of placer deposits, and stricter regulation would increase costs of mining on existing claims. This would suppress placer mining, which is currently the only type of mining taking place in the WMNRA. Since placer mining is a seasonal activity which has employed less than a dozen people within the Area for the last few years, short-term economic impacts would be slight.

The opening of part of the Area to leasing of lode deposits would improve the long-term outlook for the minerals industry. If a valuable lode deposit is discovered and developed, it will probably lead to a significant increase in employment and business opportunities in Fairbanks.

Both increased recreational use and mining would have some negative social impacts, such as increased traffic on the Steese and Elliott Highways and on access routes into the WMNRA.

All impacts, positive and negative, would be seasonal, since most activities in the Area would occur in summer.

Support Needs

Support needs are discussed in detail in Part II of this document.

Subsistence

Under the proposed plan, only 285 acres of moose, caribou,,and Dall sheep habitat are expected to be affected by mining and access development. Physical disturbance of certain stream beds would not significantly impact downstream fisheries. Fire management and prescription burns would improve quality and quantity of habitat for moose and other species. Water quality standards would be met or exceeded.

COMPLIANCE WITH SECTION 810 OF ANILCA. What follows is an evaluation of the Proposed Plan regarding (1) subsistence uses and needs, (2) the availability of other lands for the purposes sought to be achieved, and (3) other alternatives which would reduce or eliminate the proposed action from lands needed for subsistence purposes.

USES AND NEEDS. Overall, the proposed plan would have little effect on subsistence uses and needs because relatively few subsistence activities take place directly within the WMNRA. Further, the Fortymile caribou herd does not currently use the region to any significant degree. Instead, the stay primarily south of the Steese Highway. Subsistence trapping occurs sporadically in many of the river areas of the WMNRA. However, this activity occurs in the wintertime and is not greatly impacted, if at all, by summertime activities such as mining and certain types of recreation. Habitat destruction from mining and possible roads and trails would involve only a very small fraction of the land within the WMNRA and even that involvement would be mitigated to accommodate wildlife and subsistence opportunities. As for increased access resulting from new roads and trails, subsistence users may be able to enhance their harvest opportunities by entering previously remote areas. If competition with nonsubsistence harvesters becomes a problem, the State of Alaska has the wildlife management prerogative to institute fish and game regulations to provide local subsistence users with a harvest priority.

Under the proposed plan, the northern part of the WMNRA and the Beaver Creek NWR would be managed for primitive, non-motorized recreation. This would help reduce possible future competition for subsistence resources from recreational hunters. Also, water quality in Beaver Creek is to be improved with water quality standards met or exceeded by close cooperation with the Alaska Department of Environmental Conservation and the U.S. Environmental Protection Agency in the enforcement of State and federal water pollution laws.

The low levels of moose, fish, and wood utilization for subsistence purposes, particularly in the northern portions of the WMNRA, should be unaffected. Fire management and prescription fire in certain areas would improve quality and quantity of habitat for moose and other species, thus potentially increasing their numbers.

In general, wildlife habitat protection and improvement under the proposed plan would further help maintain present subsistence resources for subsistence use.

AVAILABILITY OF OTHER LANDS. BLM was mandated by Congress to plan for <u>all</u> <u>and</u> <u>only</u> the public lands within the WMNRA. In following this mandate, there are no 'other lands' which can be considered. (Note: The various alternatives themselves within this plan do consider different land use configurations; however, <u>all</u> available lands are still evaluated in all six alternatives.)

OTHER ALTERNATIVES. The six alternatives in this EIS themselves constitute the 'other alternatives.' The differing management strategies for certain areas within the WMNRA are indicated elsewhere in this document along with probable effects on wildlife, habitat, and access which is related to subsistence uses and needs. (Note: Information on lands used for subsistence purposes is found in Chapter II.)

SECTION 810(a) FINDING FOR THE PROPOSED PLAN. There would be no significant restriction of subsistence uses under the Proposed Plan.

ALTERNATIVE A: CONTINUATION OF THE PRESENT MANAGEMENT

Recreation

Seventy-four percent of the area, about 742,000 acres, is currently claimed as primitive with outstanding wilderness values.

Recreational opportunities would remain largely unchanged under this alternative. Placer mining would have some negative impacts on recreation by causing impaired water quality. Current mining activity impacts water quality of the upper 50 to 75 miles of Beaver Creek NWR. Recreationists depend on clean water for fishing, potable water, and aesthetic values. Mining would degrade water quality depending on the numbers and acres of placer mines and the amount of silt being placed into the river system. Noise and aesthetic intrusions caused by mining would also be negative impacts. These impacts can be mitigated through the Surface Management Regulations, but there would be some unavoidable adverse impacts, such as water turbidity, under current mining techniques.

Development of new roads and trails to existing claims would have both positive and negative impacts on recreational opportunities. Improved access would allow increased use, but the primitive character of these areas would be impaired. A substantial increase in recreational use is probable on Beaver Creek, the Nome Creek area (due to recently improved access), and existing recreation sites. Projected use may increase by two or three times the current use, involving between 3,500 and 10,000 visitor use days per year.

Wildlife

Impacts to wildlife from recreational visitor use, recreational ORVs, incidental uses, rights-of-way, and the wildlife habitat program are expected to be negligible to low. Direct, unavoidable impacts from placer mining would result in approximately 80 acres of winter moose range lost in Nome, Moose, Bear, Ophir, and Quartz creeks. Access trails and roads to service these areas could directly affect wildlife behavior. Known wildlife use areas traversed by these trails include moose winter range, Dall sheep summer range, the calving area of the

White Mountains caribou herd, historical calving grounds of the Fortymile caribou herd, and grizzly and black bear summer and fall use areas. The degree of effect on wildlife use in the vicinity of trails would depend on timing and amount of trail use. Indirectly, long term effects from establishing trails and the likelihood of higher year-round use of trails could result in altering or precluding wildlife use in those areas. Mineral exploration activities using aircraft could result in minor short-term disturbances to wildlife crucial use areas.

Fish

Unavoidable adverse impacts from placer mining would continue on Nome Creek. New mining on Bear/Quartz Creek, Champion Creek and Ophir Creek would double the amount of land being mined. Turbidity on Beaver Creek would be noticeable throughout the entire length of the stream. Sport fishing opportunities would be severely curtailed for arctic grayling within mainstem Beaver Creek. Impacts may be long-term if economical quantities of gold are produced.

Minerals

There is no lode development expected under this alternative. Placer mining would be confined to existing claims, predominantly stream placers. It is expected that additional operations would start within the next five- to ten-year period. The upper Nome Creek and the Bear/Champion Creek areas would have two working placer mines, and Ophir, Quartz, and the tailings on Nome/Moose Creek would have one working placer mine each, for a total of 25 acres of disturbed area. Much of the Lower Nome Creek Road would be upgraded to serve the lower Nome Creek area and the Bear, Champion, and Ophir creek developments. A new road, 10 miles in length, would be built to the Quartz Creek area. Roads there would constitute an additional 61 acres of disturbed area.

Water Resources

An increase in ground disturbed by placer mining operations from the current 15 acres per year to an estimated 25 acres per year would cause a noticeable increase in the turbidity of Beaver Creek. Use of settling ponds, water recycling systems, and material classification systems would help reduce the impacts of placer mining, but increased turbidity would still be a significant, unavoidable adverse effect. Access to mining operations is not expected to impact water resources except at stream crossings and in riparian areas.

Unrestricted use of ORVs or multiple passes of large vehicles could result in severe erosion problems in areas of heavy use. Resultant stream sedimentation and channel erosion would increase turbidity levels and decrease the productivity of riparian areas.

Impacts from fire management would be minimal except for possible suppression activities causing localized erosion problems.

Local use of forest products would have no impacts on water resources since applications for fuelwood or houselogs would be considered and approved on a case by case basis.

Vegetation, Soils, and Air Quality

The major impact on vegetation is likely to be caused by the change from full suppression of all fires to fire management based on a variety of attack levels. In the areas where some fires are permitted to burn, the gradual shift to climax communities which is now occurring would be slowed or prevented. The environmental impacts of fire management are described in greater detail in the Alaska Interagency Fire Management Plan: Upper Yukon-Tanana Planning Area.

Continuation of existing placer mining and the construction of roads, trails, and recreational facilities would cause some destruction of vegetation. Under this alternative, such damage is not expected to be significant and could be mitigated by proper project design and revegetation of disturbed areas.

This alternative would not lead to any significant, unavoidable, adverse impacts or irreversible commitments of vegetative resources. Long-term productivity of vegetation (especially as an element of wildlife habitat) would be improved by fire management, although there may be a small short-term loss of usable timber.

SOILS. Localized soil disturbance will occur at a few sites, principally placer mines. Overall impacts on soils are not expected to be significant under this alternative.

AIR QUALITY. There will be no significant effects on air quality. Changes in fire management may result in more smoke during some fire seasons.

Visual Resources

Mining is the major activity which has affected and would continue to affect visual resources. Dirty water and other visual intrusions caused by mining can be partially mitigated through visual analysis and design but there would be some unavoidable adverse impacts. These impacts would be limited to existing claims under this alternative. Some of the long-term impacts can be alleviated by proper reclamation. Impacts would be less significant in areas where past mining activities have already altered the landscape character. Impacts would be the most significant in previously undisturbed mining drainages. The undisturbed scenic quality of these areas would be devalued as a result of manmade

intrusions. This is likely to occur in drainages of Bear, Champion, and Quartz creeks, and to a degree, of Ophir Creek. Other surface-disturbing activities, including use of off-road vehicles, may also impact scenic quality by introducing new lines of disturbance not characteristic to the landscape. Site-specific impacts would be significant during the actual mining, but long-term effects could be substantially reduced with the enforcement of good reclamation procedures.

Cultural and Paleontological Resources

Without further inventory to determine the location and significance of these resources, any surface-disturbing activity has the potential to cause damage. Existing mining operations, ORV use, and the development of access roads, trails, recreational facilities are examples of surface-disturbing activities. Adverse impacts can be mitigated as a result of case by case Class III examinations prior to surface disturbance. Any destruction of cultural and paleontological resources is an irreversible commitment of non-renewable resources.

Land Status and Access

LAND STATUS. This alternative would cause no changes in land status within the WMNRA.

ACCESS. Access would be improved slightly as new roads and trails are constructed to reach existing undeveloped mining claims.

Social and Economic Conditions

This alternative has no short-term social or economic effects. Long-term effects are more difficult to assess. Leaving the area closed to all new mineral development could eventually have a negative effect on the mining-related economy of Fairbanks and the Central/Circle Hot Springs area. However, the WMNRA does not currently contribute as much to that economy as do other nearby areas, located mostly on State lands.

Recreational use of the WMNRA could be beneficial to the local economy, but recreational use is not expected to increase significantly under this alternative.

Support Needs

Implementation of this alternative will not require a significant increase in BLM personnel or funding.

Subsistence

This is the "no action" alternative. The present levels and systems of management would continue. Recreation and the protection of those values contributing to quality recreation would be the primary considerations.

BLM would consider requests for permits to act but would initiate few or no actions. About 74 percent of the area is presently primitive in character, about 20 percent is semi-primitive non-motorized and six percent is semi-primitive motorized. All lands are closed to leasing and the location of new mining claims. Only valid existing claims would be operated.

COMPLIANCE WITH SECTION 810 OF ANILCA. The following is an evaluation of Alternative A relative to (1) subsistence uses and needs, (2) the availability of other lands for the purposes sought to be achieved, and (3) other alternatives which would reduce or eliminate the proposed action from lands needed for subsistence purposes.

USES AND NEEDS. Under Alternative A, new mining location under the 1872 Mining Law as amended is no longer possible. Thus, little expansion of mining is expected outside the areas already being mined in the southeastern part of the WMNRA. These areas constitute only a small fraction of the total acreage within the WMNRA. Consequently, negligible impacts on caribou, moose, and Dall sheep crucial habitat are expected in the short-term. In the long-term, indirect adverse impacts to crucial habitat could develop, as noted in the wildlife discussion. However, because subsistence usage in the WMNRA is low, this should not result in a significant restriction on the occasional subsistence harvest of these animals. Moreover, equal or better habitat nearby would remain unaffected and can be used. Implementation of the Alaska Interagency Fire Management Plan: Upper Yukon-Tanana Planning Unit would result in eventual improvement of certain moose habitat.

Because subsistence trapping is done in the wintertime, virtually no impacts from mining or associated roads or trails will affect it. Also, construction of any new roads would be preceded by further environmental review, including analysis of subsistence impacts. If necessary, further mitigation to protect subsistence opportunities could be applied at that time. Furthermore, in the short-term, there would be little or no change in access anticipated under this alternative. Current "NO TRESPASSING" signs on existing roads discourage non-local use. New access roads might facilitate increased subsistence activities by providing easier access. If increased competition from non-rural harvesters were to be caused by opening new roads or from a general rise in use of the area, the State of Alaska has the wildlife management prerogative to institute new fish and game regulations to provide area subsistence users with a harvest priority.

AVAILABILITY OF OTHER LANDS. BLM was mandated by Congress to plan for <u>all and only</u> the public lands within the WMNRA. In following this mandate, there are no 'other lands' which can be considered.

(Note: The various alternatives within this plan do consider different land-use configurations; however, <u>all</u> available lands are still evaluated in all six alternatives)

OTHER ALTERNATIVES. The six alternatives in this Environmental Impact Statement constitute the 'other alternatives.' The differing management strategies for certain areas within the WMNRA are indicated elsewhere in this document along with the probable effects on wildlife, habitat, and access which relate to subsistence uses and needs. (Note: Information on lands used for subsistence purposes is found in Chapter II.)

SECTION 810(a) FINDING FOR ALTERNATIVE A. There would be no significant restriction of subsistence uses under Alternative A.

ALTERNATIVE B: MANAGEMENT EMPHASIS ON RESOURCE PROTECTION

Recreation

Recreational opportunities, as in Alternative A, would remain largely unchanged under this alternative. It would also designate 742,530 acres, or 74 percent of the Area for primitive management. Regulatory requirements on mining activity would be more stringently applied on the remainder of the WMNRA than under Alternative A. This would minimize impacts to aesthetics and water quality. Site specific impacts could still cause significant cumulative impacts over time since placer mining effects are slow to heal if left to natural processes. Long-term effects would be substantially reduced as a result of good reclamation procedures.

Placer mining would have a negative impact on recreation by causing impaired water quality, especially on the headwaters of Beaver Creek. Noise and visual intrusions caused by mining would also be negative impacts. The degree of impact would depend on the level of development. These impacts can be mitigated through the Surface Management Regulations, but there would be some unavoidable adverse impacts, such as water turbidity.

Development of new roads and trails to existing claims would have both positive and negative impacts on recreational opportunities. Access would be improved. This would allow increased use, but the primitive character of some areas may be impaired. A moderate increase in recreational use is probable on Beaver Creek, the Nome Creek area (due to recently improved access), and in the vicinity of trails and recreation sites.

Mineral development and construction of access in primitive areas is likely to be an irreversible commitment of resources, since areas with access seldom revert to a primitive character.

Wildlife

The impacts from placer mining activities and other land uses on wildlife would be very similar to those of Alternative A. However, implementation of management controls would result in most impacts being avoided or minimized. Short-term disturbances to wildlife from aircraft and trail

use would be minimized by restricting human use in crucial habitats to non-crucial time periods. The indirect long-term effects of trail use could be reduced by closing the area and trails to the use of ORVs if visitor use levels increased to the point of disrupting or precluding normal wildlife use in the area. Direct, unavoidable, adverse effects from placer mining could result in the loss of as much as 80 acres per year of riparian vegetation valuable for moose winter range in Nome, Moose, Bear, Ophir and Quartz creeks.

Fish

Unavoidable adverse impacts from placer mining activities would continue. The amount and/or degree of habitat damage should be decreased as intensive regulatory management is enforced. Recovery of fish habitat from physical alterations should be quicker than in Alternative A. Sport fishing opportunity would decrease in the mainstem of Beaver Creek due to increased placer mining in upstream tributaries (Bear, Quartz, and Champion creeks).

Minerals

Since a greater emphasis is placed on environmental protection in this alternative, there would be increased enforcement of existing regulatory requirements, which would increase the cost of mining by at least 75 percent.

The acres of disturbance in Alternative A (increased mining activity on as much as 25 acres per year and a road into Quartz Creek) should be considered maximum. Any claims that convert to leases must also conform to State water quality standards during production.

Water Resources

Impacts from placer mining operations are expected to be the same as in the present situation. Active mining in the headwaters of Beaver Creek would introduce turbidity levels into Beaver Creek which would be noticeable 50 miles downstream. Use of settling ponds, water recycling and material classification would help mitigate the impacts, but turbidity levels would still be noticeable during periods of active mining and high water flow.

Access and ORV use can be expected to create only localized watershed impacts and can be successfully mitigated through specific authorizations, seasonal-use restrictions and closure of areas which show heavy impacts.

Fire management would have little impact on water quality, except for potential erosion problems associated with suppression activities in the full protection areas. These impacts can be avoided or mitigated by proper fire line location and rehabilitation.

Vegetation, Soils, and Air Quality

VEGETATION. Impacts described under Alternative A would be unchanged, except that the use of prescribed fire would allow a greater degree of control over fire-caused changes in plant communities. Also, inventory work and the designation of Research Natural Areas would provide a higher degree of protection for rare and sensitive plant habitats.

SOILS. Because of limitations on off-road vehicles, soil disturbance would be less than under Alternative A. Overall impacts on soils are not expected to be significant.

AIR QUALITY. There would be no significant effects on air quality. However, changes in fire management may result in more smoke during some fire seasons.

Visual Resources

Impacts would be similar to those described in Alternative A, but long-term impacts would be significantly reduced. Mining activities in undisturbed areas should change the local scenic-quality class in the short-term (for approximately five years after reclamation). In the long-term, little of the disturbance would be noticeable. Short-term impacts, such as turbid water, removal of vegetation, and exposed soil from man-caused activities, would lessen the scenic quality. Long-term effects could be substantially reduced by good reclamation. Drainages of particular concern are Bear, Champion, Quartz, and Ophir creeks.

Cultural and Paleontological Resources

Increased mining activity has a greater potential for impacting those resources which have not yet been identified. Stringent application of regulatory requirements on mining activity may aid in the identification of these resources, but protection involves removal rather than avoidance.

Development of access and recreational facilities can be planned to identify, avoid, or protect these resources and perhaps increase their public value through interpretation or reconstruction. Increased use may have both direct and indirect impacts. Vandalism and theft may become a problem, but increased use may also promote protection through public awareness and interest.

Land Status and Access

Land status within the boundaries of the WMNRA would not change significantly. If the proposed exchanges can be accomplished, federal ownership of adjacent lands would increase by about 19,800 acres. Access would be improved slightly as new roads and trails were constructed. Improved design and more careful supervision of construction would result in better quality of roads and trails.

Social and Economic Conditions

Social and economic impacts would be the same as in Alternative A.

Support Needs

Implementation of this alternative would require increased commitments of resources in the recreation, minerals, and wildlife programs. Temporary summer employees would be needed to provide visitor services, and funds would be needed for construction of facilities. The minerals program would need increased funding for enforcement of the Surface Management Regulations, and the wildlife program would require funds for planning and execution of habitat improvement projects and necessary inventories.

Subsistence

Management under this alternative would emphasize maintenance or enhancement of natural processes and environmental quality. Non-motorized recreation would be the primary use. Wildlife habitat would be managed to maintain or increase wildlife populations by various means, including prescription fires. Water quality in Beaver Creek would be maintained or improved by monitoring and completing compliance checks of all activities, including mining.

COMPLIANCE WITH SECTION 810 OF ANILCA. The following is an evaluation of Alternative B regarding (1) subsistence uses and needs, (2) the availability of other lands for purposes sought to be achieved, and (3) other alternatives which would reduce or eliminate the proposed action from lands needed for subsistence purposes.

USES AND NEEDS. The impacts on subsistence activities, including uses and needs, from placer mining and other land actions on water quality, wildlife, fish, and other subsistence resources would be little different from Alternative A. Any difference would be in degree, with implementation of management controls causing most impacts to be minimized or eliminated. Any resultant additional increase in harvestable resources would thus enhance the opportunities for subsistence use.

The emphasis on maintaining the primitive character of the WMNRA would keep non-subsistence users near the present low level of use in the northern portions due to limited access. Any increased access from possible new mining roads associated with existing mining claims in the southern portion of the WMNRA could facilitate area subsistence users. If increased competition from non-rural harvesters was to be caused by opening new roads or from a general rise in use of the area, the State of Alaska has the wildlife management prerogative to institute new fish and game regulations to provide area subsistence users with a harvest priority.

AVAILABLITY OF OTHER LANDS. BLM was mandated by Congress to plan for all and only the public lands within the WMNRA. In following this mandate, there are no 'other lands' which can be considered.

(Note: The various alternatives within this plan do consider different land use configurations; however, all available lands are still evaluated in all six alternatives)

OTHER ALTERNATIVES. The six alternatives in this Environmental Impact Statement constitute the 'other alternatives.' The differing management strategies for certain areas within the WMNRA are indicated elsewhere in this document along with the probable effects on wildlife, habitat, and access which relate to subsistence uses and needs. (Note: Information on lands used for subsistence purposes is found in Chapter II.)

SECTION 810(a) FINDING FOR ALTERNATIVE B. There would be no significant restriction of subsistence uses under Alternative B.

ALTERNATIVE C

Recreation

Impacts to recreation under this alternative would result primarily from increased access and mineral development, although some of these roads and trails would also benefit public use of the area. This would impact the user who is looking for a wilderness experience. Roads would provide access for activities such as hunting and hiking in areas which now receive limited use due to their remote location. Recreational facility development would also increase recreational use and such predictable effects as trash, soil compaction, human/bear conflicts, and user conflicts, especially in the vicinity of developed sites and access routes. These problems can be mitigated by visitor services such as public information (signing and brochures), maintenance, and design of facilities and adequate management presence.

Expanded mineral development under this alternative, especially in the headwaters of Beaver Creek, could result in adverse impacts to the wild river floating experience. The adverse impacts of mining on recreation are described in Alternative A but, because more land is open to mineral development under this alternative, the potential for adverse effect is higher. Most significant would be the substantial reduction in water quality. Turbidity could be expected to be seen on the entire length of Beaver Creek. Impacts of water quality on fisheries could reduce the recreational use of the fishery resource. Cumulative effects of site-specific impacts would be a major factor under this alternative. Some impacts can be mitigated through implementation of existing Surface Management Regulations, but there would be some unavoidable, adverse impacts to recreation as the setting shifts from a generally natural, undisturbed area to one that reflects the imprint of man-caused activities.

The total effect of decreasing primitive recreational opportunities by 30 percent through increased access, recreational facility development, and mineral development could be of significance to some user groups that currently enjoy the present opportunities. Areas identified for continued primitive management may also be affected by development activities located outside of the primitive management areas.

However, during the life of this plan, much of the area identified for semi-primitive motorized management would most likely remain primitive in character as a result of poor access.

Wildlife

Placer mining activities in Trail, Ophir, Nome, Champion, Bear, Quartz, and Moose creeks and the expansion of trails in the Champion, Bear, and Trail creeks would result in approximately 200 acres of direct habitat loss. Principal habitats impacted by placer mining would be moose winter range and caribou calving ground. Lode mining in Cache Mountain, Roy Creek, and Lime Peak areas would also result in direct habitat loss. Approximately 610 acres would be required for the mines, mills, tailings, and expanded roads and trails in these areas. Habitats impacted by hardrock mining include caribou calving areas and movement routes; Dall sheep lambing areas, licks, movement routes, and winter range; and grizzly bear use areas. Additionally, areas adjacent to the mines and roads would likely be avoided by these species. Unavoidable adverse effects from mining activity and increased visitor use of roads and trails would probably result in a significant reduction in the Dall sheep populations in this area and would alter or preclude caribou, Dall sheep, and grizzly bear use in the vicinity of the mining activity.

Fish

Unavoidable adverse impacts from placer mining may occur on Trail, Ophir, Nome, Champion, Bear, Quartz and Moose creeks. The amount of mining could potentially be four times that of the present situation. Impacts on Beaver Creek would increase significantly due to increased turbidity and siltation from tributary streams. Sport fishing opportunity on the mainstem of Beaver Creek would be completely eliminated due to continually muddy water.

Upland mineral development could cause localized short-term impacts as discussed previously in the general section. However, long-term impacts could be mitigated successfully.

Minerals

In addition to the development described in Alternative A, there would be increased exploration in drainages opened to mineral leasing and not previously affected. There would be an increased interest in exploring bench ground and unclaimed areas adjacent to claim blocks. This would

most likely lead to further development starting five years from now. New areas that could be exploited include benches and existing tailings on Trail Creek, upper Ophir Creek, Moose Creek, Nome Creek, and benches on Champion/Bear Creek and Quartz Creek. Locations are shown on Table 3-3.

PROJECTION OF MINERAL DEVELOPMENT IN ALTERNATIVE C

Table 3-3

Location	New Leases	Per Lease	Annual Disturbance in Acres
Trail Creek	2	5	10
Ophir Creek	1	5	5
Nome Creek	4	5	20
Champion Creek	2	5	10
Bear Creek	2	5	10
Quartz Creek	1	5	5
Moose Creek	1	5	5
	13		65

Lease holders would use the roads identified in Alternative A, but an additional 10 miles of roadway to Trail Creek, 10 miles into Upper Champion Creek, and 10 miles to serve Bear Creek would be required. A total of 55 acres in roads and 65 acres of lease area would be disturbed under this alternative.

Additional areas could be explored for lode minerals include Cache Mountain, Roy Creek, and Lime Peak. Maximum disturbances could take place if a mine was opened on each site, however, development would probably remain small-scale until the economics of mining improved. Maximum acreage disturbance could be 10 acres per mile of road and 50 acres for mine and tailings disposal areas. Assuming the Lower Nome Creek Road is upgraded for placer mining, development on Cache Mountain and Roy Creek could use the same road. Lime Peak would require a separate road from the existing Nome Creek Road for 20 miles up the ridge line to Lime Peak.

Water Resources

A potential increase of 75 acres of disturbance from placer operations would increase turbidity levels in Beaver Creek far beyond State of Alaska water quality standards. This would undoubtedly affect its entire length. Even using the current technology of settling ponds, water recycling, and material classification, this would be an unavoidable adverse impact.

The development of hardrock mining operations of up to 180 acres could also have some unavoidable adverse impacts. Underground mining for hardrock minerals would have little effect on water resources. Open pit mining would damage upland watersheds through physical disturbances. Both types of mining could cause water quality degradation through erosion and leaching from tailings. Extensive hardrock mineral development may require water withdrawals from the watershed, which could adversely impact the streamflow characteristics. Although this is not likely to occur under this alternative, the impact can be mitigated by proper timing of water withdrawals. The impacts on water quality can be mitigated through design and placement of mining facilities and tailings, waste water treatment, and reclamation practices.

The construction of roads for access to lode mines would have little impact on water resources. Road construction would have to be properly located, with adequate stream crossings, and would need improved road surfaces. This would prevent upland watershed erosion due to heavy vehicle traffic on unimproved trails.

Unrestricted use of light ORVs during summer could result in localized upland watershed deterioration and associated erosion problems. Use of ORVs in stream channels and riparian areas can cause erosion and increased sedimentation and turbidity. This would likely be a short-term impact. If erosion problems from ORV use develop, areas would be closed to ORV use. Rehabilitation of disturbed areas could mitigate the impacts.

There would be very little impact from fire management activities except when suppression is necessary. These impacts will be mitigated by proper fire line location and post suppression reclamation.

Impacts from forest-product use such as timber harvest could impact water resources. Surface disturbance from harvest activities and access could lead to stream sedimentation and increased turbidity. Slash that is left in riparian areas or in stream channels can lead to channel degradation and erosion. These impacts can be mitigated by management controls, seasonal-use restrictions, and stream setbacks.

Vegetation, Soils, and Air Quality

VEGETATION. Impacts of fire management would be the same as those described in Alternative A, except that the use of prescribed fire would allow a greater degree of management control over those impacts.

Opening large areas to location of new mining claims could have an impact on vegetation if valuable mineral deposits are discovered and developed. Mining requires clearing of vegetation, but such clearings would be relatively small in relation to the entire WMNRA, even with the maximum amount of mineral development considered likely. Adverse impacts can be mitigated by Surface Management Regulations and mineral leasing regulations. If proper reclamation were done, there would be no irreversible commitments of resources.

Inventory work would make it possible to identify and protect rare and sensitive plant habitats; but, because of difficulty in regulating off-road vehicles, there is a slightly greater risk to such plants under this alternative than under Alternative B.

SOILS. Fewer restrictions on off-road vehicles and the possibility of increased mining may mean that the risk of soil disturbance and erosion is higher under this alternative than under Alternatives A or B. Negative impacts can be mitigated through surface management regulations and mineral leasing regulations, through construction of properly designed roads and trails which would reduce dispersed use of vehicles, and through reclamation of disturbed sites.

AIR QUALITY. There would be no significant effects on air quality. Changes in fire management may result in more smoke during some fire seasons.

Visual Resources

The impacts to visual quality under this alternative would be substantially more damaging to the environment than under Alternative A. Since most of the mining activity would be in areas previously undisturbed, impacts could be significant enough to change the landscape character and effect a reduction in scenic quality. Through proper design and reclamation procedures, impacts can be partially mitigated for the long term (five years after reclamation).

Cultural Resources and Paleontological

Since this alternative allows for an increase in development activities, potential impacts to cultural and paleontological resources would be greater. Impacts under this alternative would result primarily from increased mining activity. Other effects have been described under the Proposed Plan and Alternative B.

Land Status and Access

Land status within the boundaries of the WMNRA would not change significantly. If the proposed exchanges could be accomplished, federal ownership of adjacent lands would increase by about 19,800 acres. Summer access would be improved significantly by roads and trails constructed for mineral development or recreational use. Winter access is likely to remain difficult although roads can be used as snowmachine trails in the winter.

Social and Economic Conditions

This alternative would improve the long-term outlook for the minerals industry in the area. This would have a positive impact on the local economy. Increased recreational use would also contribute to the

economy. However, an increase in the number of visitors may lead to conflicts between users, especially between recreationists and miners. Some miners would object to recreational use of roads and trails which they have constructed.

Improved access and development of recreational facilities would be beneficial to motorists, campers, hunters, and other recreationists who use vehicles or facilities. Opportunities would be reduced for those who favor a primitive recreational setting.

Support Needs

This alternative would require at least the same level of support as Alternative B. In addition, funding needs would increase for construction of recreational facilities, since more are proposed under this alternative. Also, if mineral development increases, greater funding would be needed for enforcement of mineral leasing regulations and maintenance of wildlife values in the Special Management Areas. Recreation would be regarded as primary use in this alternative. Leasing of locatable minerals would be allowed in 56 percent of the area under leasing regulations, and all exploration activities would require approval of the Authorized Officer. Wildlife would be managed to maintain or increase wildlife populations. The crucial wildlife habitat would be closed to leasing of locatable and nonenergy minerals.

Subsistence

Increased mining activity with new access roads, would be expected. Water quality would worsen as turbidity would occur farther upstream on Beaver Creek and its tributaries which are presently clear. In general, there would be more activity and more people in areas outside the Beaver Creek rivershed and the White Mountains themselves because of additional access into new mining areas. Motorized access would also encourage increased activities into new areas. More river floaters would be present because of the improved access into lower Nome Creek. This access would be open to subsistence users and sport hunters alike, so competition for game could increase.

COMPLIANCE WITH SECTION 810 OF ANILCA. The following is an evaluation of Alternative C regarding (1) subsistence uses and needs, (2) the availability of other lands for the purposes sought to be achieved, and (3) other alternatives which would reduce or eliminate the proposed action from lands needed for subsistence purposes.

USES AND NEEDS. As noted in Chapter II, the WMNRA is currently an area with relatively low subsistence usage. Increased turbidity would result in new impacts to the fisheries resources in Beaver Creek. New areas where mining would occur still constitute a small fraction of the total land within the WMNRA. Thus, loss of habitat for subsistence resources to mining and associated roads is not significant in the context of the

larger region. On a long-term basis, indirect adverse impacts to crucial habitat for caribou and Dall sheep could develop. However, because subsistence usage of these resources in the WMNRA is low, this should not result in a significant restriction on the occasional harvest of these animals. Moreover, equal or better habitat nearby would remain unaffected and could be used. Implementation of the Yukon-Tanana fire management plan would result in eventual improvement of certain moose habitats.

Because subsistence trapping occurs in the wintertime, virtually no impacts from mining or possible associated roads or trails would cause an affect. Also, any new roads would be preceded by further environmental review including analysis of subsistence impacts. Further mitigating measures, if necessary to protect subsistence opportunities, could be applied at that time. New access roads, providing easier access, might facilitate increased subsistence activities. If increased competition from non-rural harvesters were to be caused by opening new roads, or from a general rise in use of the area, the State of Alaska has the wildlife management prerogative to institute new fish and game regulations to provide area subsistence users with a harvest priority.

AVAILABILITY OF OTHER LANDS. BLM was mandated by Congress to plan for all and only the public lands within the WMNRA. In following this mandate, there are no 'other lands' which can be considered.

(Note: The various alternatives within this plan do consider different land use configurations; however, all available lands are still evaluated in all six alternatives.)

OTHER ALTERNATIVES. The six alternatives in this Environmental Impact Statement constitute the 'other alternatives.' The differing management strategies for certain areas within the WMNRA are indicated elsewhere in this document along with the probable effects on wildlife, habitat, and access which relate to subsistence uses and needs. (Note: Information on lands used for subsistence purposes is found in Chapter II.)

SECTION 810(a) FINDING FOR ALTERNATIVE C. There would be no significant restriction of subsistence uses under Alternative C.

ALTERNATIVE D

Recreation

The impacts from Alternative D are similar in nature to those in Alternative C, but would be more severe. Water quality in Beaver Creek would be seriously degraded throughout its length. Since 83 percent of the area would be open to mineral leasing, virtually all the area would be affected by adverse impacts from mineral development, such as noise, surface disturbance, and changes in aesthetics. Numbers of recreation

users would be highest with this alternative due to the improved access throughout the Area, but much of the WMNRA would be lost to those seeking a wilderness experience. Effects of increased recreational use and mining on wildlife and fisheries, primary attractors for this area, could seriously affect habitat and populations, reducing long-term productivity of the resources.

Wildlife

The impacts of placer mining activities and other land uses would be similar to those of Alternative C. Direct, unavoidable, adverse effects from placer mining would result in approximately 200 acres of habitat loss. Lode mining activity could be expanded to Mount Schwatka, and additional mines could be located at Cache Mountain and Lime Peak. This hardrock mining activity, which is greater than that of Alternative C, could result in a maximum of 911 acres of habitat lost to disturbance. Such a loss could result in a long-term reduction in Dall sheep, caribou, and grizzly bear populations. This would be an unavoidable adverse effect. Principal habitats impacted would be Dall sheep lambing areas, licks, movement routes, and winter ranges; caribou calving areas, movement routes, and winter ranges; and grizzly bear high-use areas. Increased visitor use of roads and trails would contribute to alteration of wildlife use patterns and avoidance of areas by wildlife.

Fish

Unavoidable adverse impacts from placer mining may occur on Trail, Ophir, Nome, Champion, Bear, Quartz, and Moose creeks. The amount of mining could potentially quadruple compared to the present situation. Impacts on Beaver Creek would increase significantly due to increased turbidity and siltation from tributary streams. Sport fishing opportunity on the mainstem of Beaver Creek would be completely eliminated due to continually muddy water.

Upland mineral development could cause localized short-term impacts as discussed previously in the general section. However, long-term impacts could be mitigated successfully. Short-term impacts would increase due to road construction necessary to develop the increased lode mineral mining.

Minerals

The opportunity for placer gold development would be expanded. Although more acreage would be available, it is doubtful that more than the number of operations estimated for Alternative C would go into production. Acreage limitations and lease stipulations on operators discharging into Beaver Creek NWR would preclude more operations.

Lode mining development is likely to benefit from this alternative. All of Cache Mountain, Lime Peak, and part of Mount Prindle and Mount Schwatka would be open to leasing in this alternative, in addition to all the acreage that was opened in Alternative C.

In comparison with Alternative C, maximum disturbance would include an additional mine at Mount Schwatka, a second at Cache Mountain, and a third at Lime Peak. Each mine could directly impact 60 acres, raising the total to 360 acres of disturbance.

In addition, access to the Mount Schwatka area from Livengood would require 20 miles of road, disturbing 121 acres. Total disturbance under this alternative could then reach 911 acres over a 10-year period.

Water Resources

The estimated 75-acre increase in placer mining would result in increased turbidity levels beyond the State of Alaska water quality standards for the entire length of Beaver Creek. Strict enforcement of the best current mining techniques and management controls could only partially mitigate this impact. Extensive development of hardrock mining in the Mount Schwatka, Cache Mountain, and Lime Peak areas could have significant impacts on water resources. Water quality could be degraded by erosion from disturbed surfaces and leaching from tailing ponds. There could be a major impact on in-stream water supply if extensive water withdrawals are required for milling operations. These impacts can be mitigated to some degree by proper placement and design of tailing ponds, runoff control structures, and timing of water withdrawals. Another possible, though improbable, impact by extensive open pit or underground mining operations, would be interuption of ground water aquifers. This impact is impossible to assess but, if it occurred, would be an unavoidable adverse impact.

Access to new placer mining operations could result in severe upland and riparian erosion problems if heavy equipment is moved cross-country during summer months. Stream crossings and in-stream use of vehicles would result in stream sedimentation and increased turbidity. This impact can be mitigated by requiring all equipment moves to take place during wintertime under frozen conditions.

Access to large hardrock mining and milling operations would require new and improved roads. This would cause upland watershed deterioration but would not result in excessive erosion if properly designed and constructed.

Unrestricted use of light and heavy ORVs can result in severe erosion problems leading to stream sedimentation and high turbidity levels. Upland watershed areas would be subject to degradation in areas of heavy use. These impacts could only be mitigated by closure and rehabilitation of disturbed areas.

Impact from fire management and forest product use would be the same as for Alternative C and would be expected to be minimal.

Vegetation, Soils, and Air Quality

Impacts to soil and vegetation would be similar to those described under Alternative C, but would increase proportionately to the amount of development. The likelihood of negative impacts from mining would be increased, since a larger area would be opened to mining. There would be no significant change in air quality. However, the greater use of fire for wildlife management may result in more smoke during some fire seasons.

Visual Resources

Visual impacts are similar to other alternatives, but the extent and severity would be the greatest under this alternative. As in Alternative C, most mining activity would be in areas previously undisturbed. Since most of the area would be open for mineral development (83 percent), virtually all of the area could be affected by mining activities, although that would not be likely during the life of this plan. Wherever development occurs, scenic qualities would be devalued as a result of manmade intrusions. This devaluation could be mitigated somewhat with careful planning prior to the mining activity and use of proper reclamation procedures.

Cultural and Paleontological Resources

Since this alternative allows for the greatest increase in such activities, the potential impact to cultural and paleontological resources is even greater. The need for site-specific Class III Inventories would increase proportionately to the amount of development.

Land Status and Access

Land status within the boundaries of the WMNRA would not change significantly. Proposed exchanges would expand federal ownership to 19,800 acres of adjacent lands. Access needs would increase significantly because of the amount of potential development allowed in this alternative.

Social and Economic Conditions

This alternative provides the best opportunity for maintaining or improving the local economy through increased mineral development and recreational activity. The impacts of improved access, development of recreational facilities, and an increase in the number of visitors are the same as those described under Alternative C.

Support Needs

This alternative would require a higher level of support than Alternatives A, B, or C. This alternative projects the highest level of recreational development and, therefore, would require the most

construction and the highest level of visitor services. Also, this alternative has a high potential for increased mineral development. Increased development would increase the work load in enforcement of surface management regulations, maintenance of wildlife values in the Special Management Areas, and protection of other resources.

Subsistence

In this alternative 83 percent of the WMNRA would be open to leasing of locatable minerals. Through leasing, BLM retains discretion to accept or reject requests on a case by case basis and to design additional mitigation to help maintain subsistence opportunities.

Recreation would be regarded as the primary use, with improved access and more facility developments. Wildlife habitat would be managed and protected to maintain populations at near present levels. Habitat would be improved using mechanical means, prescribed fire, and wildfire. A Special Management Area designation for crucial wildlife habitats would emphasize habitat protection in those areas.

COMPLIANCE WITH SECTION 810 OF ANILCA. The following is an evaluation of Alternative D regarding (1) subsistence uses and needs, (2) the availability of other lands for the purposes sought to be achieved, and (3) other alternatives which would reduce or eliminate the proposed action from lands needed for subsistence purposes.

USES AND NEEDS. Everything stated about subsistence uses and needs for Alternative C applies to this discussion. Furthermore, while certain impacts to wildlife, fish, water resources, and vegetation presented for this alternative sound potentially severe for certain areas, two points need to be stressed. One is that the WMNRA is currently an area of relatively low subsistence usage. The other is that potential impacts would be affecting only a small portion of the total area of the WMNRA. Additionally, as stated above, BLM would retain discretionary power over leasing of locatable minerals which would affect up to 83 percent of the WMNRA. This means BLM would examine each request for leasing on a case by case basis and could accept, reject, or help modify the proposal using mitigative measures to lessen impacts on subsistence opportunities and resources. Such mitigation could include seasonal closures of roads and trails, surface occupancy stipulations in leases, noise level requirements, etc. Habitat improvement measures would be combined to mitigate a potential decline in wildlife populations.

AVAILABILITY OF OTHER LANDS. BLM was mandated by Congress to plan for <u>all and only</u> the public lands within the WMNRA. In following this mandate, there are no 'other lands' which can be considered.

(Note: The various alternatives within this plan do consider different land use configurations; however, <u>all</u> available lands are still evaluated in all six alternatives.)

OTHER ALTERNATIVES. The six alternatives in this Environmental Impact Statement constitute the 'other alternatives.' The differing management strategies for certain areas within the WMNRA are indicated elsewhere in this document along with the probable effects on wildlife, habitat, and access which relate to subsistence uses and needs. (Note: Information on lands used for subsistence purposes is found in Chapter II.)

SECTION 810(a) FINDING FOR ALTERNATIVE D. There would be no significant restriction of subsistence uses under Alternative D.

ALTERNATIVE E

Alternative E was presented in the Draft EIS as the Preferred Alternative and is summarized here for tracking purposes only. Recreational development would be at the same level as Alternative C. However, somewhat more area would be opened to motorized recreation and mineral leasing. This alternative would provide a variety of recreational opportunities while allowing use of other valuable resources.

For all resources except wildlife habitat, environmental consequences are similar to those described under Alternative C. The amount of land opened to mineral development under this alternative is somewhat larger than the area opened under Alternative C; therefore, the risk of all impacts associated with mineral development is higher. However, the areas which are most sensitive to such impacts (Beaver Creek and the White Mountains) would not be opened to development.

Impacts on wildlife habitat are expected to be closer to the impacts of Alternative D. Subsistence use would not be significantly restricted by any actions in this alternative. Support needs would be the same as for Alternative C.

Recreation

Alternative E is a modification of Alternative C. Recreational development would be at the same level as Alternative C. However, somewhat more land would be opened to motorized recreation and the use of off-road vehicles. Recreational development would be less extensive than under Alternative D, but more extensive than under the Proposed Plan. The impacts from mining would not exceed those noted under Alternative D.

Wildlife

The impacts from placer mining activities and other land uses would be similar to those of Alternative D. Direct, unavoidable, adverse effects from placer mining would result in approximately 100 acres of habitat loss. Expansion of hardrock mining activity, in addition to that of Alternative C, would result in approximately 620 total acres of habitat loss. Such a loss would result in a long-term reduction in Dall sheep,

caribou, and grizzly bear populations. Principal habitats impacted would be Dall sheep lambing areas, licks, movement routes, and winter range; caribou calving areas, movement routes, and winter range; and grizzly bear high-use areas. Increased visitor use of roads and trails would contribute to alteration of wildlife use patterns and avoidance of areas by wildlife.

Fish

Unavoidable adverse impacts from placer mining may occur on Trail, Ophir, Nome, Champion, Bear, Quartz, and Moose creeks. The amount of mining could potentially quadruple compared to the present situation. Impacts on Beaver Creek would increase considerably due to increased turbidity and siltation from tributary streams. Sport fishing opportunity on the mainstem of Beaver Creek would be completely eliminated due to continually muddy water.

Upland mineral development could cause localized short-term impacts as discussed previously in the general section; however, long-term impacts could be mitigated successfully. There would be more short-term impacts due to road construction for accessing the increased lode mining operations. Impacts would be similar to those discussed previously.

Minerals

Most effects are similar to those described in Alternative D. The total acreage withdrawn from leasing was increased by 12 percent. A potential mine site on Cache Mountain was withdrawn. Exploration most likely would not have occurred in the White Mountains themselves since leasing was not allowed. Acres of disturbance are shown in Table 3-1.

Visual Resources

Impacts are similar to other alternatives but, as in Alternative D, extent and severity would be high under this alternative. As in Alternative C, most mining activity would be in previously undisturbed areas. Most of the area would be open for mineral development (71 percent), but only localized areas would be affected by mining activities (perhaps 700 acres total). Areas with primitive scenic qualities would be devalued as a result of manmade intrusions. This devaluation could be mitigated somewhat with careful planning prior to action and use of proper reclamation.

Cultural and Paleontological Resources

Since this alternative allows for an increase in development activities, potential impacts to cultural and paleontological resources would be greater. Impacts under this alternative would result primarily from increased mining activity. Other effects have been described under the Proposed Plan and Alternative B.

Land Status and Access

Land status within the boundaries of the WMNRA would not change significantly. If the proposed exchanges could be accomplished, federal ownership of adjacent lands would increase by about 19,800 acres. Access would be improved slightly as new roads and trails were constructed. Improved design and more careful supervision of construction would result in better quality roads and trails.

Social and Economic Conditions

This alternative would improve the long-term outlook for the minerals industry in the area, which would have a positive impact on the local economy. Increased recreational use would also contribute to the economy.

However, an increase in the number of visitors may lead to conflicts between users, especially between recreationists and miners. Some miners would object to recreational use of roads and trails which they have constructed.

Improved access and development of recreational facilities would be beneficial to motorists, hunters, and other recreationists who use vehicles or facilities. Opportunities would be reduced for those who favor a primitive recreational setting.

Subsistence

In this alternative, 71 percent of the WMNRA would be open to leasing of minerals. Through leasing, BLM would retain discretion to accept or reject requests on a case by case basis and to design additional mitigative measures after environmental and subsistence assessments to help maintain subsistence opportunities. Also, 71 percent of the WMNRA would be open to semi-primitive motorized recreation. Improvement of vehicle access to upper and lower Nome Creek areas would be encouraged. More recreational facilities would be provided than in other alternatives. Monitoring and checking for compliance would be done for all activities. Wildlife habitat would be managed to maintain wildlife values. Certain habitat could be improved by using mechanical means, prescribed fire, and wildfire. A special management area would be established for habitat protection purposes which would receive priority for monitoring and checking for compliance to protect wildlife habitat.

COMPLIANCE WITH SECTION 810 OF ANILCA. The following is an evaluation of Alternative E regarding (1) subsistence uses and needs, (2) the availability of other lands for the purposes sought to be achieved, and (3) other alternatives which would reduce or eliminate the proposed action from lands needed for subsistence purposes.

USES AND NEEDS. The evaluation of Alternative E on subsistence uses and needs is essentially the same as that stated for Alternative D. Twelve percent less land than under Alternative D would be subject to possible mineral location, with a corresponding decline in the potential impacts to wildlife, habitat, and animal access routes.

AVAILABILITY OF OTHER LANDS. BLM was mandated by Congress to plan for all and only the public lands within the WMNRA. In following this mandate, there are no 'other lands' which can be considered.

(Note: The various alternatives within this plan do consider different land use configurations; however, all available lands are still evaluated in all six alternatives.)

OTHER ALTERNATIVES. The six alternatives in this Environmental Impact Statement constitute the 'other alternatives.' The differing management strategies for certain areas within the WMNRA are indicated elsewhere in this document along with the probable effects on wildlife, habitat, and access which relate to subsistence uses and needs. (Note: Information on lands used for subsistence purposes is found in Chapter II.)

SECTION 810(a) FINDING FOR ALTERNATIVE E. There would be no significant restriction of subsistence uses under Alternative E.

Summary of Section 810(a) Findings for the Six Alternatives of the WMNRA Environmental Impact Study

The six alternatives have been evaluated in this chapter for effect on subsistence uses and needs. The following is a brief summary highlighting major differences where they occur, using key topics:

WATER QUALITY

The Proposed Plan alone, among all the alternatives, states that water quality standards will be met or exceeded by enforcement of State and federal water pollution laws. In the other five alternatives, additional degrees of water turbidity are expected. For subsistence purposes, the best situation is the cleanest water possible, but additional turbidity is not a significant restriction to ongoing, relatively low levels of water-related subsistence uses within the WMNRA.

WILDLIFE POPULATIONS AND HABITAT

Under the six alternatives, various degrees of wildlife habitat loss are expected. For the Proposed Plan, the estimate is 285 acres, as compared to the other five alternatives which range from 80 acres to 911 acres. Compared with the total acreage of the WMNRA, these numbers are virtually insignificant, particularly in light of the low degree of subsistence activities occurring within the WMNRA. Also, to be recalled, is the fact that the Fortymile caribou herd population is presently low and basically stays south of the WMNRA. For all alternatives, some degree of fire management and fire prescription would take place, potentially increasing moose habitat in particular. Furbearers and associated sporadic trapping in all alternatives would remain virtually unchanged despite mining and

recreational levels. This is because trapping is a wintertime activity, while mining and most recreational uses would occur in the summer. Management controls described in the Proposed Plan, involving wildlife habitat protection and improvement, may be the most effective of all the alternatives concerning potential conflicts in crucial habits during crucial use periods.

ACCESS

None of the alternatives expect any limitations on the access of subsistence users to harvestable resources. To the contrary, all the alternatives, except Alternative A, predict various degrees of increased access into the WMNRA which could facilitate additional subsistence use of resources in currently remote areas.

For the above reasons, this evaluation concludes that there would not be a significant restriction on subsistence uses under any of these six alternatives for the White Mountains National Recreation Area Resource Management Plan/Environmental Impact Statement.

UNAVOIDABLE ADVERSE EFFECTS

This section identifies unavoidable adverse effects on land uses and components of the human environment resulting from management actions in the Proposed Plan. These are impacts that would remain after mitigative measures have been taken.

Greater demand for human use of wildlife resources would alter or reduce wildlife use areas. No avoidable impacts would occur to Beaver Creek fisheries habitat.

UNAVOIDABLE ADVERSE IMPACTS
WHITE MOUNTAINS NATIONAL RECREATION AREA
RESOURCE MANAGEMENT PLAN

Table 3-4

Proposed Plan Element	Unavoidable Adverse Impacts
Recreation	Some degradation in recreational quality due to increased recreation and mining. A reduction in opportunities for primitive recreation. ORV use would reduce primitive values but increase motorized recreation. Improved access would increase recreational use.
Wildlife and Fisheries	Some negative, cumulative impacts would occur. Prescribed burning may have a short term impact on some species.
Mineral Resources	Restriction of new placer mining and some potential lode mining would reduce potential mineral development. Leasing requirements may increase cost of mining.
Visual Resources	Some degradation may be caused by ORV use, mining, fire and trail use.
Soils, Air Quality	Very minor short-term, adverse impacts. Some soil disturbance and erosion from ORV use. Increased erosion and air quality degradation from fire.
Subsistence	No unavoidable impacts.
Water Resources	Short-term and intermittent water quality degradation.
Vegetation	Some limited impact if access routes, trails or mineral lode deposits are developed.
Cultural and Paleontological Resources	No unavoidable impacts.

UNAVOIDABLE ADVERSE EFFECTS SHOULD THE PROPOSED PLAN BE IMPLEMENTED

Recreation

Some primitive values would be lost through mining and recreational development. While these impacts can be minimized through strict enforcement of mining regulations and careful consideration of development, design, and location of development, there would be some unavoidable impacts to primitive values.

Wildlife

Natural revegetation would be slow where the soil is disturbed, and reseeding would have to be done with commercially available species that can be successfully established on disturbed soil. The character of the vegetation in these areas would be unavoidably changed for a few years but eventually would revert to native species. The principal habitat affected would be moose winter range.

Some impacts from mineral development and other human activities on wildlife would be short term. Wildlife species which are sensitive to noise, odors, movement, and the presence of man would be most affected by these activities and would avoid areas where these effects occurred. Construction and use of facilities, operation of mining equipment, and increased activity in previously inaccessible areas are factors which would adversely affect wildlife. The ultimate result would be a reduction in wildlife populations in these localized areas.

Long-term impacts on wildlife could occur as a result of human use of roads, trails, airstrips, airports, and other areas. Depending on frequency of use, disturbances to wildlife would result in stress on sensitive species and would reduce the land area frequented by them.

Populations of wildlife species that are associated with some climax vegetation types could face short-term reduction in localized areas due to prescription fire and wildfire management practices.

Cumulative impacts on wildlife and habitat would occur when apparently small, insignificant impacts accumulate over time. These impacts would become crucial in the long run if conflicts between mineral development and increased visitor use were not mitigated.

Fish

In-stream placer gold mining unavoidably results in short- to long-term loss of space for fish and other aquatic life within the area of active mining, with resultant displacement or destruction of local populations of aquatic life. Downstream effects on habitat, relating to increases of sediment on the channel and bed characteristics of streams, often result

in changes detrimental to fish populations. Sport fishing opportunities would not be available in those stream beds where mining is occurring until mining is completed and the area is successfully rehabilitated.

Water Resources

There will be short-term and intermittent increases in turbidity due to erosion from disturbed ground and breaching of settling ponds during breakup and periods of flooding.

The Relationship Between Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity

This section identifies the trade-offs between short-term use and long-term productivity of the resources involved in the Proposed Plan. For this analysis, short-term refers to the five- to ten-year period of effective implementation of the plan and long-term refers to the period of up to 20 years or longer in which the adverse or beneficial impacts would still occur.

Mining in the WMNRA can leave a significant impact on localized recreational resources for the short term. With proper reclamation of areas and enforcement of protective rules, regulations, and plans of operation, long-term effects can be greatly minimized. If the soils are not destroyed, the ability of the land to restore itself and return to its former usefulness has been manifested in interior Alaska. Many heavily mined areas have been returned to the wilderness. Failure to effectively enforce these requirements could have severe long-term impacts.

The long-term productivity of wildlife habitat would depend on the extent and timing of development and the success of reclamation efforts where habitat has been physically altered or where wildlife use has been altered or precluded. The short-term direct effect of mineral development and other activities would be the abandonment of the area by some wildlife during development. Most wildlife would be expected to return to developed areas if the areas were successfully reclaimed. A possible exception is the Dall sheep. Over the long term, cumulative effects of disturbances in Dall sheep habitat could result in abandonment of traditional use areas and movement patterns.

Irreversible and Irretrievable Commitment of Resources

This section identifies the extent to which the Proposed Plan would irreversibly limit potential uses of the land and resources. Irreversible and irretrievable commitments of resources occur when future options are foreclosed.

Mining activity and development in primitive, undisturbed areas is likely to be an irreversible commitment of resources since areas with access seldom revert to a primitive character. Increased recreational access and development could have a similar impact on primitive values in the long term.

Over the long term, wildlife and habitat are renewable resources. There would be few irreversible or irretrievable commitments of wildlife habitat if mitigative measures designed to avoid or minimize adverse effects of mineral development and other activities were used to their fullest effect.

The removal of a mineral resource is an irreversible and irretrievable commitment of that specific resource. Affected resources could include sand, gravel, gold, silver, lead, zinc, copper, tin, platinum, tungsten, and rare earth elements.

White Mountain National Recreation Area - Summary of Environmental Consequences

Proposed Plan	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
RECREATION					
Minimize impacts from placer mining. Potential new impacts from lode on 29% of area. Some minor impacts from development of recreational trails and sites on primitive values. ORV limitations will reduce new impacts.	Potential for significant impacts from mining activities on water quality and aesthetics. Impacts from increased recreational use and facility development will be as under the Proposed Plan.	Impacts same as A but generally less severe.	Increased mining and related access will impact primitive values. Opportunities for ORV use will be increased over B. ORV impacts will also increase. Increase in recreational facility. Development will diversify recreational opportunities but will impact primitive values.	Most significant impacts to primitive recreation from mining and development in previously undisturbed areas. Water quality in presently clear-water tributaries will be seriously degraded. Increased recreational facility development will provide diverse recreational opportunities. ORV use opportunities and impacts substantially increased.	Same as Alternative D but somewhat less severe as slightly more area will be managed for primitive values.
VISUAL RESOURCES					
Impacts from resource uses will be satisfactorily mitigated by visual assessment and design to meet visual management objectives. Potential for negative effects from development of existing claims.	Potential for impacts from mining and ORV use will exist but should be moderately mitigated.	Same as A.	Substantial potential for impact from new mining activities and ORV use, as only 44% will be managed to maintain scenic quality.	Most potential for impacts from mining and ORV use, as only 16% will be managed to maintain scenic quality.	Serious potential for impact from mining and ORV use, as only 29% will be managed to maintain scenic quality.
WILDLIFE					
285 acres moose, caribou, and Dall sheep habitat lost to mining and access disturbance.	Same as Proposed Plan except 80 acres lost.	Same as A.	Same as Proposed Plan except 610 acres lost.	Same as Proposed Plan except 911 acres lost.	Same as Proposed Plan except 851 acres lost.
Management controls will minimize conflicts in crucial habitats during crucial use periods.	Indirect long-term adverse impacts in crucial caribou and Dall sheep habitat due to minimum management controls.	Same as Proposed Plan.	Indirect long-term adverse impacts in crucial caribou and Dall sheep habitat despite management controls to minimize conflicts.	Same as C.	Same as C.

Proposed Plan	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Fire plan and prescription fire will improve quality and quantity of habitat for moose and other species.	Same as Proposed Plan except fire plan only.	Same as Proposed Plan.	Same as Proposed Plan except mechanical treatments also used.	Same as C.	Same as C.
Peregrine falcon nest sites maintained.	Same as Proposed Plan.	Same as Proposed Plan except both nesting and prey gathering areas maintained and formal critical habitat designated.	Same as Proposed Plan.	Same as Proposed Plan.	Same as Proposed Plan.
FISH					
Physical disturbance of stream beds on Nome, Bear, Quartz and Champion creeks. Total disturbance about 3,500 feet.	Same as Proposed Plan.	Same as Proposed Plan.	Physical disturbance on Nome, Bear, Champion, Trail, Ophir, Quartz and Moose creeks.	Same as C.	Same as C.
Rehabilitation of Nome Creek about 5-8 miles of restored habitat.	No improvement on Nome Creek.	Same as Proposed Plan.	Same as Proposed Plan.	Same as Proposed Plan.	Same as Proposed Plan.
Downstream water quality with no significant impacts to Beaver Creek.	Downstream water quality poor and negative impact to habitat, populations, and sport fishing opportunity due to increased turbidity on Beaver Creek.	Same as Proposed Plan.	Downstream water quality will be worse than with A. Sport fishing opportunity seriously decreased or eliminated due to turbid water.	Same as C.	Same as C.
MINERALS					
Oil and Gas Leasing 555,000 acres closed to O&G leasing. 44.5% of area with seasonal restrictions will increase operational costs.	All closed to O&G leasing.	Same as A.	7% closed to O&G leasing. 430,000 acres closed to surface occupancy.	Same as C.	29% closed to O&G leasing.
Leasable lode-55% closed Leasable placer-All closed to new placer mining leases. Seasonal restrictions will increase operational costs up to 100% on existing claims.	All closed. Continued closure will restrict placer mining to the 672 existing claims.	All closed.	44% closed to leasing.	17% closed to leasing.	29% closed to leasing.

Proposed Plan	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
CULTURAL RESOURCES					
Site-specific or Class III Inventories will be conducted on the basis of development demands to avoid adverse impacts to sites which may be eligible to the National Register of Historic Places.	Class III Inventories will be conducted for all proposed surface-disturbing activities to avoid adverse impacts.	Class III Inventories same as Proposed Plan; indirect impacts from recreational use may affect these resources.	Class III Inventories same as Proposed Plan; increased mining activity will have the greatest impact on these resources.	Same as C.	Same as C.
WATER QUALITY					
Water quality standards met or exceeded.	Noticeable impacts for up to 50 miles downstream.	Same as A.	Noticeable impacts for entire length of river.	Same as C.	Same as C.
VEGETATION					
Same as A No significant impacts.	Same as Proposed Plan.	Same as Proposed Plan.	Some short-term impacts from mining and roads.	Same as C.	Same as C.
SOILS					
No significant impacts.	Same as Proposed Plan.	Same as Proposed Plan.	Same as Proposed Plan.	Same as Proposed Plan.	Same as Proposed Plan.
AIR					
No significant impacts.	Same as Proposed Plan.	Same as Proposed Plan.	Same as Proposed Plan.	Same as Proposed Plan.	Same as Proposed Plan.
ACCESS					
No significant impacts.	Same as Proposed Plan.	Same as Proposed Plan.	Same as Proposed Plan.	Same as Proposed Plan.	Same as Proposed Plan.

Proposed Plan	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
SOCIAL AND ECONOMIC CONDITIONS					
Restricted mining will economically impact a few; overall no significant impact.	Present closure impacts some to unknown degree.	Same as A.	Some conflicts between users.	Same a C.	Same as C.
SUBSISTENCE					
No significant restrictions.	Same as Proposed Plan.	Same as Proposed Plan.	Same as Proposed Plan.	Same as Proposed Plan.	Same as Proposed Plan.
SUPPORT NEEDS					
Same as D.	Present levels.	Increase in funding and personnel in recreation and wildlife.	Same as B.	Increased need over B.	Same as D.

CHAPTER IV

CONSULTATION, COORDINATION, CONSISTENCY, AND PUBLIC PARTICIPATION

Public Involvement During Development of the Environmental Impact Statement

At the beginning of the planning process, notices inviting public participation were published in the Federal Register and four Alaskan newpapers. A mailing list of interested parties was compiled and continually updated as planning proceeded.

Prior to completion of the Draft Resource Management Plan/Environmental Impact Statement, comments were solicited at three points in the process: identification of issues, development of criteria, and estimation of effects of alternatives. Comments were solicited by mail. In addition, public meetings were held during the estimation of effects of alternatives in Fairbanks, Central and Birch Creek. Briefings were given on request to a number of agencies and organizations.

The Fairbanks District Advisory Council played a major role in the development and quality of the RMP/EIS. The Council met six times during the course of the planning process and provided significant and cogent comments which aided materially in the preparation of the final RMP/EIS. The members of the Council provided specific input into the planning process by resolutions and recommendations. Their participation was recognized as a key element in the District and State Office discussions on the alternatives and on the quality control.

The Draft RMP/EIS was published December 30, 1983, and public comments on the Draft were accepted until March 30, 1984. The Draft RMP/EIS was sent to all persons and groups on the mailing list and was available on request from the Fairbanks District Office or the Alaska State Office of BLM. Public meetings and workshops were held in Fairbanks, Anchorage, and Circle Hot Springs, to answer questions and solicit comments on the Draft RMP/EIS. Public comments are summarized and discussed in Chapter V.

To ensure consistency with plans for adjacent lands, adjacent land managers (State of Alaska, and U.S. Fish and Wildlife Service) were included in the contact group from the beginning of the process.

Adjacent federal lands managed by BLM include the Steese National Conservation Area. A land use plan has also been written for this area. To ensure coordination between plans for the SNCA and the WMNRA, both plans were prepared simultaneously by the same planning team. The Proposed Plan/Environmental Impact Statement for the SNCA has been published separately and is available from BLM.

List of Agencies, Organizations, and Persons To Whom the Final Environmental Impact Statement Was Sent

Alaska Commissioner
Department of Natural Resources
Honorable Ester Wunnicke
Juneau, Alaska

Alaska Department of Transportation
and Public Facilities
Fairbanks, Alaska

Alaska Department of Transportation
and Public Facilities
Juneau, Alaska

Alaska Land Use Council
State Chairman
Honorable Bill Sheffield
Juneau, Alaska

Alaska Land Use Council
Vernon R. Wiggins
Anchorage, Alaska

Alaska State Representative
Bob Bettisworth
College, Alaska

Alaska State Representative
Mike Davis
College, Alaska

Alaska State Senator
Honorable Bettye Fahrenkamp
Fairbanks, Alaska

Alaska State Senator
Honorable Don Bennett
Fairbanks, Alaska

AMAX Exploration, Inc.
Lakewood, Colorado

AMOCO Production Corp.
Anchorage, Alaska

ARCO Exploration
Anchorage, Alaska

Abrahamsen, Sue
West St. Paul, Minnesota

Abuza, Robert
Northhampton, Maine

Achman Mine
Fairbanks, Alaska

Ackels, Del M.
Fairbanks, Alaska

Ackels, James and Nancy
Fairbanks, Alaska

Adams, Francis Jeffery
Northway, Alaska

Adams, Roxana
Juneau, Alaska

Adler, Kurt
Anchorage, Alaska

Adler, Robert W.
New Cumberland, Pennsylvania

Alaska Alpine Club
Fairbanks, Alaska

Alaska Biological Research
Fairbanks, Alaska

Alaska Center for the Environment
Anchorage, Alaska

Alaska Department of
Environmental Conservation
Fairbanks, Alaska

Alaska Department of Fish and Game
Anchorage, Alaska

Alaska Dogmushers Association
Fairbanks, Alaska

Alaska Federation of Natives
Anchorage, Alaska

Alaska Gold Company
Fairbanks, Alaska

Alaska Miners Association
Anchorage, Alaska

Alaska Miners Association
Fairbanks, Alaska

Alaska Oil and Gas Association
Anchorage, Alaska

Alaska Railroad
Anchorage, Alaska

Alaska State Parks
Anchorage, Alaska

Alaskan Prospectors and Miners News
Fairbanks, Alaska

Allaway, James
Anchorage, Alaska

Allen, Brian
Fairbanks, Alaska

American Rivers
Washington, D.C.

Amoco Production Company
Denver, Colorado

Anaconda Copper Co.
Denver, Colorado

Anaconda Copper Co.
Anchorage, Alaska

Anderson, Brandon
Fairbanks, Alaska

Anderson, Dean
Mercer Island, Washington

Anderson, Tury and Charles
Fairbanks, Alaska

Arctic Audubon Society
College, Alaska

Arctic Circle Hot Springs Lodge
Central, Alaska

Arctic Mining Systems
Fairbanks, Alaska

Atlantic Richfield Co.
Denver, Colorado

Ault, Robert
Fairbanks, Alaska

BLEM Mining Co.
Fairbanks, Alaska

BTW Mining and Exploration Co.
Anchorage, Alaska

Babula, Walter, Dr.
Fairbanks, Alaska

Backus, Doug
North Pole, Alaska

Barelka, Paul
Fairbanks, Alaska

Barksdale, John and Josephine
Anchorage, Alaska

Barnard, Jim
Fairbanks, Alaska

Bast, Dr. Fred D.
Fairbanks, Alaska

Batchelor, Harold
Fairbanks, Alaska

Bauer, Vern and Sue
Fairbanks, Alaska

Bayette, Marsha
Fairbanks, Alaska

Bear Creek Mining
Anchorage, Alaska

Beecher, Ned
New Haven, Conneticut

Behr, Mr. and Mrs. David
Central, Alaska

Benson, Elizabeth A.
Fairbanks, Alaska

Berkhahn, Bill
Fairbanks, Alaska

Biessel, Kathy
Fairbanks, Alaska

Big Joe, Rocker, Jr.
Fairbanks, Alaska

Biliper
Hadlyme, Conneticut

Birch, Horton, Bittner,
Monroe, Pestinger, and Anderson
Fairbanks, Alaska

Bishop, Sam
Fairbanks, Alaska

Bloom, Larry
Fairbanks, Alaska

Bohms, Mark
Fairbanks, Alaska

Bosba, Frank R.
Fairbanks, Alaska

Bottom Dollar Mining Co.
Central, Alaska

Bouton, Jeff
College, Alaska

Braddock, Douglas T.
Fairbanks, Alaska

Bradley, Nattalie D.
Fairbanks, Alaska

Brown, James
Fairbanks, Alaska

Buchanan, Tim K.
Fairbanks, Alaska

Bureau of Indian Affairs
Fairbanks, Alaska

Bureau of Land Management
Wheat Ridge, Colorado

Bureau of Mines
Fairbanks, Alaska

Burger, Sam
Fairbanks, Alaska

Burggraf, Roger C.
Fairbanks, Alaska

Burton, Jeff
Fairbanks, Alaska

Burton, Jeffrey
Fairbanks, Alaska

Burwell, Michael
Anchorage, Alaska

Butts, Earl and Martha
Hubbard, Oregon

Byrd, Dick L.
Fairbanks, Alaska

Calamari, Richard
Fairbanks, Alaska

Carder, Mike and Rex
Central, Alaska

Carlin, Steve and Donna
Fairbanks, Alaska

Carlson, Betty
Fairbanks, Alaska

Carlson, Karl R.
Fairbanks, Alaska

Carlyle, James S.
Soldotna, Alaska

Carpenter, M.
Fairbanks, Alaska

Carroll, James Newton
North Pole, Alaska

Caulfield, Richard A.
Fairbanks, Alaska

Cavanaugh, David L.
Girdwood, Alaska

Chapin, Melissa
Fairbanks, Alaska

Chaping, F. Stuart III
Fairbanks, Alaska

Charles, Steve
Willow, Alaska

Chugach Natives, Inc.
Anchorage, Alaska

Chumbley, James
Fairbanks, Alaska

Chumbley, Cynthia
Fairbanks, Alaska

Circle District
Historical Society, Inc.
Central, Alaska

Circle Mining District
Central, Alaska

Citizens Advisory Committee
on Federal Areas
Fairbanks, Alaska

Clark, Dexter and Lynette
Fairbanks, Alaska

Clear/Healy Advisory Committee
Clear, Alaska

Council of Alaskan Archaeology
Anchorage, Alaska

Coe, Gregory J.
Fairbanks, Alaska

Coe, Walter R.
Louisville, Kentucky

Collins, Florence R.
Lake Minchumina, Alaska

Cominco American Incorporated
Spokane, Washington

Continental Oil Co.
Houston, Texas

Cook, Al
Fairbanks, Alaska

Cooper, Lee W.
Fairbanks, Alaska

Cooper, Steve
Anchorage, Alaska

Cooperative Extension Service
Fairbanks, Alaska

Cooperative Wildlife Research
Fairbanks, Alaska

Corazza, Rich
Homer, Alaska

Cornwall, Tom
College, Alaska

Coronado Mining Corp.
Anchorage, Alaska

Cotton, Jack W., Sr.
Fairbanks, Alaska

Cowan, Margaret
College, Alaska

Crane, John and Jean
Fairbanks, Alaska

Crawford, Bart and Shelly
Fairbanks, Alaska

Cukurs, Vita V.
Anchorage, Alaska

Daum, David W.
College, Alaska

Davis, Ron
Fairbanks, Alaska

Delta Advisory Committee
Delta Junction, Alaska

Demientieff, Samuel S.
Fairbanks, Alaska

Denbow, Ed
Fairbanks, Alaska

Department of Fish and Game
Juneau, Alaska

Department of the Interior
Anchorage, Alaska

Department of Environmental
Conservation
Juneau, Alaska

Dianne, Paul
Wiseman, Alaska

Dickersons Folly Inc.
Fairbanks, Alaska

Dickinson, John
Fairbanks, Alaska

Dinkins, Hal
Fairbanks, Alaska

Dinyea Corporation
Fairbanks, Alaska

Dollar, Frances
North Hollywood, California

Doyon, Limited
Fairbanks, Alaska

Draper, Hal and Nadyne
Fairbanks, Alaska

Dugdole, Graham
College, Alaska

Dukes, Ron
Fairbanks, Alaska

Dullen, Micheal R.
Fairbanks, Alaska

Dunn, William Philip
Juneau, Alaska

Dury, Horace F.
Fairbanks, Alaska

Duval Corporation
Tucson, Arizona

Ebasco Services
Bellvue, Wisconsin

Edlund, Bill
Fairbanks, Alaska

Elliot, Robert
Fairbanks, Alaska

Elmer E. Rasmuson Library
Fairbanks, Alaska

Emerson, Robert and Thomas
Fairbanks, Alaska

Emerson, Robert C.
Fairbanks, Alaska

Ensign, Fred F.
Fairbanks, Alaska

Enstar Natural Gas Co.
Anchorage, Alaska

Environmental Impact Services.
Tucson, Arizona

Erickson, Roy E.
Fairbanks, Alaska

Evanger, Jacqueline R.
Denver, Colorado

Fabrizio, Brad
Fairbanks, Alaska

Fairbanks Advisory Committee
Fairbanks, Alaska

Fairbanks North Star Borough
Fairbanks, Alaska

Fairbanks Town and Village Association
Fairbanks, Alaska

Federal Highway Administration
Juneau, Alaska

Finnoff, Ramona
Fairbanks, Alaska

Fletcher, Douglas C.
Leaburg, Oregon

Fort Yukon Historical Society
Ft. Yukon, Alaska

Freeman, Leslie L.
Fairbanks, Alaska

Friesima, H. Paul
Evanston, Illinois

Fritts, Mary
Fairbanks, Alaska

Fyten, Warren J.
Fairbanks, Alaska

Galena Advisory Committee
Nulato, Alaska

Garee, Dave
North Pole, Alaska

Gelvin, Mr. and Mrs. Ed
Central, Alaska

Gelvin, Stanley and Andrea M.
Central, Alaska

General Crude Oil Co.
Anchorage, Alaska

Geophysical Institute
Fairbanks, Alaska

Geraghty Mining
Fairbanks, Alaska

Geraghty, Bruce R.
Fairbanks, Alaska

Gho, Mario
Fairbanks, Alaska

Gibbs, D.
Anchorage, Alaska

Gibson, Michael E.
Fairbanks, Alaska

Gibson, Wayne and Ellen
Fairbanks, Alaska

Giles, John
Fairbanks, Alaska

Glass, Cynthia
Fairbanks, Alaska

Golden Ram Mining Corp.
Anchorage, Alaska

Goodrick, Terry
Denver, Colorado

Gordon, Richard J.
Juneau, Alaska

Gottschalk, Michael T.
College, Alaska

Gower, Jim and Jan
Fairbanks, Alaska

Grayling/Anvik/Shageluk/
Holy Cross Advisory Committee
Anvik, Alaska

Greer, Paolo
Fairbanks, Alaska

Gregory, Patti
Fairbanks, Alaska

Greif, Richard
Fairbanks, Alaska

Groves, Joanne E.
Fairbanks, Alaska

Grundberg, Carl
Fairbanks, Alaska

Gulf Mineral Resources Co.
Anchorage, Alaska

Hamilton, Robert S.
Fairbanks, Alaska

Hanna Mining Co.
Cleveland, Ohio

Hansen, Vickie
Fairbanks, Alaska

Harrison, Rochelle
Fairbanks, Alaska

Hartle, John
Fairbanks, Alaska

Haskins, George
Fairbanks, Alaska

Hassel, Jerry
Ester, Alaska

Heatherly, Glenn
Anchorage, Alaska

Heflinger, Carl
Fairbanks, Alaska

Herb, Marrianne
Anchorage, Alaska

Herning, Harold R.
Fairbanks, Alaska

Herzog, Martha
Anchorage, Alaska

Hicks, Mrs. Leon
Joliet, Montana

Hiller, Geroge
Fairbanks, Alaska

Hills, Susan
College, Alaska

Hite, Larry and Loren
Fairbanks, Alaska

Hite, Loren C. and Helen
Fairbanks, Alaska

Hocking, Nancy
Ester, Alaska

Holt, Carson and Hazel
Fairbanks, Alaska

Hopkins, David
Mercer Island, Washington

Houk, Dean and Shirlee
Fairbanks, Alaska

Houston International
Minerals Corporation
Denver, Colorado

Houston Oil and
Mineral Exploration Co.
Anchorage, Alaska

Hunter, Celia M.
Fairbanks, Alaska

Hutton, Mrs. Frank
2137 Seventh Avenue
Sacramento, California

Institute of Northern Forestry
Fairbanks, Alaska

Interior River Users Group
Ester, Alaska

Interior Village Association
Fairbanks, Alaska

Interior Woodcutters Association
Fairbanks, Alaska

International Air Transportation
Anchorage, Alaska

Ivison, Sue
Fairbanks, Alaska

Jackson, Stewart A.
Littleton, Colorado

Jacobs, Mervin
Eagle River, Alaska

James, Stephen H.
Anchorage, Alaska

Jeffers, Dennis W., DDS
Fairbanks, Alaska

Jodwalis, John
Fairbanks, Alaska

Johnson, George and Barbara
Fairbanks, Alaska

Johnson, Jill
Copper Center, Alaska

Johnson, Ron, Dr.
Fairbanks, Alaska

Joiner, Jim
Fairbanks, Alaska

Jones, Colleen T.
Anchorage, Alaska

Jordan, Loyal
Fairbanks, Alaska

Jorgenson, Torre
Fairbanks, Alaska

Junk, Gary
Ft. Wainwright, Alaska

Justice, Stan
Fairbanks, Alaska

KAK Tours
Fairbanks, Alaska

Kaufman, Ted
Nenana, Alaska

Kay, Charles
Missoula, Montana

Kaye, Roger
Bethel, Alaska

Keill, Don
Fairbanks, Alaska

Keim, Frank
Scammon Bay, Alaska

Keim, Mike
Fairbanks, Alaska

Kelly, Joseph
Fairbanks, Alaska

Kelly, Kevin P.
Fairbanks, Alaska

Kern, Greg
Fairbanks, Alaska

Khalsa, Guru Singh, Dr.
Fairbanks, Alaska

Kirchner, Scott M.
Fairbanks, Alaska

Knott, Lawrence M.
Fairbanks, Alaska

Koyukuk Advisory Committee
Alatna, Alaska

Krenzle, Mark K.
Nenana, Alaska

Kupiec E. J.
College, Alaska

LaPorte, John J.
Fairbanks, Alaska

Lacey, David
College, Alaska

Lamb, Kenneth
Fairbanks, Alaska

Lands for Arctic Slope
Regional Corporation
Barrow, Alaska

Lappi, Arthur J.
Anchorage, Alaska

Largent Walter
Fairbanks, Alaska

Larson, Milnor and Marion L.
Fairbanks, Alaska

Larson, Wayne F.
Fairbanks, Alaska

Leaphart, Stan
Fairbanks, Alaska

Lester, Mike
Central, Alaska

Liccese, Joseph E.
Maplewood, New Jersey

Lindsten, Barry
Central, Alaska

Litchfield, M.
Savannah, Georgia

Livingston, Harold R.
Fairbanks, Alaska

Lombard, Stephen C.
Eagle River, Alaska

Lowe, Paul
Anchorage, Alaska

Lyle, Melody R.
Fairbanks, Alaska

Lyle, Ray
Fairbanks, Alaska

Lynes, Elizabeth W.
Savannah, Georgia

MapCo Inc.
Tulsa, Oklahoma

Magic Circle Mining, Inc.
Fairbanks, Alaska

Mahalic, Dave
Eagle, Alaska

Maisch, John and Mary B.
No address available

Mangan, Colleen
Fairbanks, Alaska

Mann, Lori D.
Burlingame, California

Manning, Kenneth
Fairbanks, Alaska

Mapco Minerals Corp.
Golden, Colorado

Marcy, Bob
Fairbanks, Alaska

Markham, Leslie D.
North Pole, Alaska

Markham, Michael B.
Fairbanks, Alaska

Marlen, Nina
St. James, New York

Matthews, Ray
Tok, Alaska

Matthewson, Terry
Fairbanks, Alaska

Mattson, Brenda J.
Fairbanks, Alaska

Mattson, Mark H.
Fairbanks, Alaska

Matviyak, Ron
Fairbanks, Alaska

Matz, Mike
College, Alaska

Mauer, Fran
Fairbanks, Alaska

Mauget, David
Fairbanks, Alaska

May, Dan and Beverly
Fairbanks, Alaska

May, Ronald M.
Fairbanks, Alaska

Mayhr, Don
Fairbanks, Alaska

McCarter, David J., Sr.
Fairbanks, Alaska

McCarthy, Gary
Anchorage, Alaska

McCaw, Jack
Fairbanks, Alaska

McDonald, Kay
Lansing, Michigan

McDowell, Thomas E.
Fairbanks, Alaska

McGrath Advisory Committee
McGrath, Alaska

McGriff, Ed
Grants Pass, Oregon

McLaughlin, Wm.
Savannah, Georgia

McLellan, Toni
MadisonWI

McLinn, W. M.
Anchorage, Alaska

McSorley Norma
Fairbanks, Alaska

Mechon, Robert D.
Anchorage, Alaska

Meeks, Ann O.
Idaho Falls ID

Melart Inc. Landru
Fairbanks, Alaska

Miller, Archie and Ken
Fairbanks, Alaska

Miller, Debbie
Fairbanks, Alaska

Miller, Ken
Beaver Ck, Alaska

Miller,John
Fairbanks, Alaska

Miner's Rights Action Group
Fairbanks, Alaska

Mineral Exploration Coalition
Denver, Colorado

Mock, Carl O.
Fairbanks, Alaska

Montano, William
Fairbanks, Alaska

Monzulla, Vincent and Linda
Fairbanks, Alaska

Morlanen, Donald
Fairbanks, Alaska

Muehlenkamp, Bill and Chuck
Fairbanks, Alaska

Musketeers and Co.
Fairbanks, Alaska

NC Machinery Co.
Fairbanks, Alaska

Nash, Gary W.
Fairbanks, Alaska

National Oceanic and
Atmosphereic Administration
Juneau, Alaska

National Parks and
Conservation Assocation
Washington, D.C.

National Audubon Society
Anchorage, Alaska

National Park Service
Anchorage, Alaska

National Park Service
Fairbanks, Alaska

National Wildlife Federation
Anchorage, Alaska

Nester, Beverly
Fairbanks, Alaska

Nicholls, Jim
Fairbanks, Alaska

Niedermeyer, Deborah
Fairbanks, Alaska

North Star Borough
Fairbanks, Alaska

Northern Alaska Ecological Services
Fairbanks, Alaska

Northern Alaska Environmental Center
Fairbanks, Alaska

National Parks and
Conservation Association
Washington, D.C.

O'Sullivan, Kevin
College, Alaska

O.A.H.
North Pole, Alaska

Oakes, Pat
Central, Alaska

Odell, Judy
No address available

Office of Management and Budget
Anchorage, Alaska

Ohman, Bill
Fairbanks, Alaska

Oppewal, Tom
Savannah, Georgia

Osborn, David
Fairbanks, Alaska

Owen, Dana
College, Alaska

Parker, David L.
Fairbanks, Alaska

Parker, Steve
Fairbanks, Alaska

Pavelsky, Birch
Fairbanks, Alaska

Pederson, Jeff
Fairbanks, Alaska

Pederson, Robert H.
Fairbanks, Alaska

Peet, Lee
North Pole, Alaska

Peltola, Elizabeth C.
College, Alaska

Pervis, Jeny
Fairbanks, Alaska

Peter Kiewit and Sons
Omaha, Nebraska

Peterson, Palmer
Fairbanks, Alaska

Petty, C. A.
Canton, New York

Phillips Petroleum Co.
Anchorage, Alaska

Placer Miners of Alaska
Fairbanks, Alaska

Planning and Programs
Fairbanks, Alaska

Platz, Billy
Fairbanks, Alaska

Platz, Mike
Fairbanks, Alaska

Pollock, Keith
Fairbanks, Alaska

Pratt, Fred
Fairbanks, Alaska

Prudential
Fairbanks, Alaska

Pysz, Kenneth
Fairbanks, Alaska

R. W. Beck and Associates
Seattle, Washington

Raymond, Michael L.
Anchorage, Alaska

Rearden, Michael B.
Bethel, Alaska

Reece, Donald L.
Fairbanks, Alaska

Regan, Dan and James
Fairbanks, Alaska

Reichardt, Terry and Paul
Fairbanks, Alaska

Resource Association of Alaska, Inc.
Fairbanks, Alaska

Resource Exploration Consultant
Fairbanks, Alaska

Reynolds, Andy
Ester, Alaska

Reynolds, Ron
Anchorage, Alaska

Richards, Hugh
Fairbanks, Alaska

Riedel, Elonore
Fairbanks, Alaska

Rieter, James
Central, Alaska

Ringstad, Mark
Fairbanks, Alaska

Ristow, Tim
North Pole, Alaska

Ritter, John
Fairbanks, Alaska

Roberts, Randy
Eielson AFB, Alaska

Robertson, John K.
Fairbanks, Alaska

Robinson, E. Allan
Anchorage, Alaska

Robinson, E. B., Jr.
Marlboro, Maine

Rogers, Laurie M.
Hoodsport, Washington

Rogers, Randy R.
College, Alaska

Rosetti, Michael
Fairbanks, Alaska

Ross, Carol L.
Wrangell, Alaska

Rowe, David
Fairbanks, Alaska

Rowe, Richard
Fairbanks, Alaska

Ruby Advisory Committee
Ruby, Alaska

Rybachek, Stan and Rose
North Pole, Alaska

Southeast Alaska Conservation Council
Juneau, Alaska

Sanchez, J.
Tucson, Arizona

Sanders, T.
Tucson, Arizona

Sauer, Jeffrey F.
Kenai, Alaska

Sayers, Vincent Thomas
Amherst, Maine

Scenic Lands Foundation
Park Ridge, Illinois

Schamer, John and Karen
Fairbanks, Alaska

Scharenberg, Randolf
Fairbanks, Alaska

Schikora, Jay
College, Alaska

Schmidt, Dana
Fairbanks, Alaska

Schmidt, Lee M.
Mt. Edgecumbe, Alaska

Schneider, Joe
Fairbanks, Alaska

Scott, Barbara
Fairbanks, Alaska

Shaffer, Dubois and Association
Grand Rapids, Michigan

Shamrock, Diamond
Denver, Colorado

Shawcroft, Bob
Fairbanks, Alaska

Shawcroft, Tom
Fairbanks, Alaska

Shebal, Leroy W.
North Pole, Alaska

Shellinger, Edward
Fairbanks, Alaska

Shideler, Richard
Fairbanks, Alaska

Ship, Van
Versailles, Kentucky

Shoemaker, Philip
Fairbanks, Alaska

Shon, Lisa
Fairbanks, Alaska

Shorthill, Carry
Chugiak, Alaska

Shotack, Russ
Fairbanks, Alaska

Shuman, Guy
Fairbanks, Alaska

Sibbitt, Brad
Fairbanks, Alaska

Sierra Club
Anchorage, Alaska

Sigman, Marilyn
Juneau, Alaska

Sims, Harold and Joel
Fairbanks, Alaska

Sims, Michael
Fairbanks, Alaska

Sisk, John
Juneau, Alaska

Sisson, Cany
Ester, Alaska

Skillinger, Bob
St. Paul, Minnesota

Sloss, Jeff
Juneau, Alaska

Smith, C. Orbin III
Fairbanks, Alaska

Smith, Joseph E.
Fairbanks, Alaska

Snodgren, Dan
Fairbanks, Alaska

Social Science Library
Moscow, Idaho

Sohio Petro Co. Technical Center
Dallas, Texas

Solie, Diana N.
College, Alaska

Souli, Harold
Anchorage, Alaska

Sourdough Heating, Inc.
Fairbanks, Alaska

State Historical Preservation
Officers Office
Anchorage, Alaska

St. Louis, Rita
Fairbanks, Alaska

Stenberg, Katy
Redmond, Washington

Stephens, Dennis
Fairbanks, Alaska

Stevens, Don
Stevens Village, Alaska

Stevens, Timothy
College, Alaska

Stevenson, Carole
College, Alaska

Stoepler, Otto and Billie
McKinley, Alaska

Stolzberg, Richard J.
Fairbanks, Alaska

Stoneman, Albert G.
Fairbanks, Alaska

Stratton, Jim
Juneau, Alaska

Studebaker, Bill
Fairbanks, Alaska

Sturmann, Alfred
Fairbanks, Alaska

Sturnick, Mark A.
Fairbanks, Alaska

Stuvek, Sallie M
Fairbanks, Alaska

Sumner, Dick
Fairbanks, Alaska

Sunshine Copters
Circle City, Alaska

Svenningson, Al
Fairbanks, Alaska

Svensk Forestry Consulting
Fairbanks, Alaska

Swanson, John R.
Berkeley, California

Sweetman, John
Fairbanks, Alaska

Swibold, Chuck
Fairbanks, Alaska

Sycamore Associates
Trout Lake, Washington

Tanana Advisory Committee
Minto, Alaska

Tanana Chiefs Conference, Inc.
Fairbanks, Alaska

Tanana Valley Sportsmans Association
Fairbanks, Alaska

Tanana-Yukon Historical Society
Fairbanks, Alaska

Tarrant, Ron
Fairbanks, Alaska

Teel, Mary Lou
Fairbanks, Alaska

Terry's Cafe
Fairbanks, Alaska

Tesoro Petroleum Co.
San Antonio, Texas

The Wilderness Society
Washington, D.C.

Thomas, John and Martha
Central, Alaska

Thorne, Dan
West Sacramento, California

Thorpe, Anne
Eagle River, Alaska

Thumma, Karl
Fairbanks, Alaska

Thurow, Gregory E.
Anchorage, Alaska

Tilsworth, Tim
Fairbanks, Alaska

Timm, Dennis
Fairbanks, Alaska

Tinsley, Ron
Fairbanks, Alaska

Tolbert, Russell
Fairbanks, Alaska

Tomsha, Louis A.
Valley, Washington

Trinity Mining Co.
Anchorage, Alaska

Trustees for Alaska
Anchorage, Alaska

Tucker, Bob
Anchorage, Alaska

Tucker, Carolyn A.
Savannah, Georgia

Tuharsky, Peter
Fairbanks, Alaska

U.S. Borax
Spokane, Washington

U.S. Borax
Los Angeles, California

U.S. Congressman
Honorable Don Young
Fairbanks, Alaska

U.S. Environmental Protection Agency
Anchorage, Alaska

U.S. Environmental Protection Agegcy
Seattle, Washington

U.S. Fish and Wildlife Service
Anchorage, Alaska

U.S. Fish and Wildlife Service
Fairbanks, Alaska

U.S. Forest Service
Juneau, Alaska

U.S. Senator
Honorable Frank Murkowski
Fairbanks, Alaska

U.S. Senator
Honorable Ted Stevens
Fairbanks, Alaska

Union Oil Co. of California
Los Angeles, California

University of Alaska
Fairbanks, Alaska

Upper Tanana/40
Mile Advisory Committee
Tok, Alaska

Usibelli Coal
Usibelli, Alaska

Ussery, Diane
Fairbanks, Alaska

Van Horn, Joe
Denali Park, Alaska

VanNieuwenhuyse, Erwin
Fairbanks, Alaska

Vetter, Rudolph
Fairbanks, Alaska

Vogler, Joespeh and Doris
Fairbanks, Alaska

Voorhees, Larry
Fairbanks, Alaska

Vrbka, Leonard J.
Fairbanks, Alaska

WGM, Inc.
Anchorage, Alaska

Wager, Jim
College, Alaska

Walker, Lars
Fairbanks, Alaska

Wallace Diamond Mining, Inc.
Osburn, Idaho

Warner, Henry and Helen
College, Alaska

Warren, Mary M.
Fairbanks, Alaska

Watson, Sarah M.
Fairbanks, Alaska

Wayburn, Edgar
San Francisco, California

Waziak, F. E.
Fairbanks, Alaska

Weeden, Bob
Fairbanks, Alaska

Weinstock, June
Fairbanks, Alaska

Wells, Ralph A., M.D.
Fairbanks, Alaska

Welna, Joseph
Fairbanks, Alaska

Welty, Lloyd and Phillis
Fairbanks, Alaska

Wernett, Frank
Homer, Alaska

Westenburg, Lee
Fairbanks, Alaska

Wetzel, Dan
Fairbanks, Alaska

Whisenhant, Jim
Fairbanks, Alaska

Wietchy, Daniel M.
Fairbanks, Alaska

Wiggs, Raymond L.
Fairbanks, Alaska

Wilcie, Milt, Dr.
Fairbanks, Alaska

Wilderness Institute School
of Forestry
Missoula, Montana

Wilde, Dorothy
Fairbanks, Alaska

Wilderness Society
Juneau, Alaska

Wilkinson, Bob
Fairbanks, Alaska

Wilkinson, Fred D.
Fairbanks, Alaska

Williams, Dena and Nancy
Fairbanks, Alaska

Williams, Jane
Fairbanks, Alaska

Williams, Rourke
Fairbanks, Alaska

Wilson, Don
Fairbanks, Alaska

Wilson, Harry E.
East Meadow, New York

Winters, Jack
Fairbanks, Alaska

Wolf, Ray
Cave Junction, Oregon

Wood, Dan
Fairbanks, Alaska

Wood, Richard A.
Fairbanks, Alaska

Wood, Virginia H.
Fairbanks, Alaska

Wood, Walter and Lillian
Valdez, Alaska

Woodby, Doug
Fairbanks, Alaska

Woodham, Harold
Fairbanks, Alaska

Woodman, Stan and Kim
Homer, Alaska

Woods, Harold Edward
Fairbanks, Alaska

Woolington, James D.
College, Alaska

Wygle, Don
Gales Creek, Oregon

Yacino, Margaret M.
E. Douglas, Maine

Yeomans, Becky
Savannah, Georgia

Yukon Flats Advisory Committee
Stevens Villag, Alaska

Yukon Flats National Wildlife Refuge
Fairbanks, Alaska

Yukon Koyukuk Charters
Chugiak, Alaska

Zaccard, Mike
Anchorage, Alaska

Zielski, Michael
Fairbanks, Alaska

Zimmer, Tom
Fairbanks, Alaska

Zwaneveld, Pete
Stafford, Arizona

CHAPTER V - RESPONSE TO PUBLIC COMMENT

One hundred and eighty-six written comments on the Draft RMP/EIS were received during the ninety-day public comment period (December 30, 1983 to March 30, 1984). In addition, nineteen people made formal statements at the public meetings held during this period. Many comments pertained to the Draft RMP/EIS for the Steese National Conservation Area as well as to the WMNRA since the Steese Draft RMP/EIS was circulated for comment at the same time.

All written and oral comments were reviewed and were considered in the preparation of this Final EIS. Because of the exceptionally voluminous response to the call for comments, this chapter will present a summary of substantive comments and the Bureau's reply to those comments. Many of the comments were similar in nature; some were duplicate copies or paraphrased versions of comments submitted by organizations. Therefore, even though a large number of comments were received, the majority of them are accurately described in the summary of substantive comments.

Some individuals and organizations submitted detailed and specific comments which are not entirely covered by the summary. These comments are reproduced here, and individual responses are provided. A complete file of all comments received is available for public inspection at the Fairbanks District Office.

Summary of Substantive Comments and Replies

COMMENT NO. 1

The document does not meet the requirements for an Environmental Impact Statement set by the Council of Environmental Quality. More thorough analyses of mitigating measures, unavoidable adverse impacts, relationships between short-term use of resources and long-term productivity, and irreversible and irretrievable commitments of resources, are necessary.

REPLY

Regulations for implementing the procedural provisions of the National Environmental Policy Act (40 CFR 1500) as well as written guidance from the Council of Environmental Quality have been followed throughout the planning process. Analyses in the Draft RMP/EIS were considered appropriate to the significance of the decisions being made. However, in response to public comments, background information and the analysis of such information have been greatly expanded in this document. See Chapters 1, 2, and 3.

COMMENT NO. 2

"Wildlife Special Management Area" and "Limited Mineral Development Zone" are terms used in the document but not adequately defined. What do they mean?

REPLY

These terms are defined in the Glossary. Please note that they apply only to alternatives in the EIS portion of this document. They do not apply to the Proposed Plan.

COMMENT NO. 3

The Preferred Alternative does not adequately provide for public recreation benefits and the conservation of values contributing to public enjoyment. This is in violation of the intent of ANILCA. The Preferred Alternative would result in a significant increase in mineral development, which would have negative impacts on water quality and other important resources. Mitigating measures described in the Draft RMP/EIS are inadequate.

REPLY

The Proposed Plan is a modification of the Preferred Alternative presented in the Draft RMP/EIS. Changes were made to ensure full compliance with the intent of ANILCA. Much less area would be made available for mineral leasing. In areas where leasing would be permitted, measures for protecting resources contributing to public enjoyment are more clearly defined.

COMMENT NO. 4

Mineral resources within the WMNRA were not adequately identified during the planning process. Decisions to open or close areas to mineral development should not be made without better data.

REPLY

The best data available was used in the preparation of the Draft RMP/EIS. During the comment period, additional mineral resource data was submitted by the Alaska Division of Mining and other sources. This data was incorporated into the Final EIS as shown by the updated mineral resources text and maps in Chapter II, and was considered in the formulation of the Proposed Plan.

We are aware of continuing efforts to collect mineral resource data on the part of the U.S. Geological Survey, the U.S. Bureau of Mines, and the Minerals Industry Research Laboratory. Also, the Proposed Plan would provide for a mineral resource assessment program to be conducted by public or private groups. All such information would be reviewed when

the plan is monitored and could be used in the formulation of amendments. Because this information can be used as it becomes available, we do not believe it is necessary to delay planning decisions until thorough mineral exploration is complete.

COMMENT NO. 5

Off-road vehicles, even those under 1,500 pounds, should not be allowed in most parts of the unit, especially in areas where primitive values are to be maintained. ORVs will damage soils and vegetation, and disturb wildlife. Even if they are not a problem now, they will become a problem if no steps are taken to control them.

REPLY

In view of the public demand for total ORV closures in some areas, the Proposed Plan has been written to prohibit ORVs in areas where primitive values are to be maintained, and these primitive areas have been enlarged from those shown in the Preferred Alternative of the Draft RMP/EIS.

However, because ORV use can be a legitimate form of recreation or transportation when appropriate environmental safeguards are in place, much of the SNCA would remain open to ORVs under 1,500 pounds. Because of the remoteness of most of the area, use of ORVs is currently relatively light and has not resulted in significant problems. We believe it is unlikely that this situation will change substantially. A monitoring program would be established to check for environmental damage caused by ORVs, and ORV use would be further restricted if such damage did occur.

COMMENT NO. 6

Most of the area should be kept in a primitive or wilderness condition, with little or no motorized transportation. Access should not be improved. Wilderness designations should be considered. Mining should be limited to existing claims. No new ground should be opened to mining or other types of development because of the threat that these activities pose to water quality, primitive values, wildlife, and other resources. These actions are necessary to comply with the intent of Congress as expressed in ANILCA.

REPLY

As the result of further analysis following the comment period, the Proposed Plan will provide more primitive area than the Preferred Alternative in the Draft RMP/EIS. Within these areas, mining would be limited to existing claims, and access would remain difficult.

In certain other areas, access would be improved, and certain forms of mineral development could be allowed. Such actions would be subject to

stipulations designed to insure environmental protection, with special attention to the conservation of values contributing to public enjoyment as required by ANILCA.

Although we recognize that improved access is detrimental to the primitive experience sought by some recreationists, it is of great benefit to those recreationists who seek a less difficult and less strenuous experience. We believe that the WMNRA is large enough to provide opportunities for both groups, and the Proposed Plan would provide a good mix of primitive and semi-primitive opportunities.

Mineral leasing would be allowed only when in compliance with ANILCA, which gives the Secretary the authority to undertake "such management, utilization, and disposal of natural resources and the continuation of such existing uses and developments as will promote, or are compatible with, or do not significantly impair public recreation and the conservation of the scenic, scientific, historic, fish and wildlife, or other values contributing to public enjoyment." (Section 1312)

Impacts on wilderness values were considered in the EIS in Chapter III. However, in light of the exhaustive wilderness reviews that have taken place in Alaska, the Secretary specifically instructed BLM to undertake no further wilderness inventory, review, study, or consideration in Alaska (Memorandum of March 12, 1981). The Secretary was given this discretionary authority in regard to wilderness review by Section 1320 of ANILCA.

COMMENT NO. 7

The Proposed Research Natural Areas at Mount Prindle, Serpentine Slide, and Limestone Jags should be enlarged. Designation of larger areas is necessary to protect the unique values found in those places.

REPLY

The primary purpose of Research Natural Areas is to provide areas suitable for scientific research, rather than to provide simple resource protection. The RNA sites were selected by a team of specialists who also proposed the boundaries, providing in some cases a choice of several options. All three RNAs recommended by the specialists have been adopted in the Proposed Plan, and the largest option was chosen in each case.

COMMENT NO. 8

The impacts of mining are not evaluated fairly in the Draft EIS. Mining activity is of finite duration, and most negative impacts are corrected in a short time by nature. These negative impacts should not be regarded as permanent. Also, some effects of mining are environmentally beneficial. For example, wildlife habitat is improved by the new growth of vegetation in areas where permafrost has been thawed by mining.

REPLY

The difference between short-term and long-term effects of mining, as well as positive impacts of mining, were considered in the Final EIS (see Chapter III.)

COMMENT NO. 9

The plan does not adequately address subsistence. Means of protecting subsistence resources and the use of those resources should be clearly defined.

REPLY

Since publication of the Draft RMP/EIS, the Alaska State Office of BLM has prepared a detailed policy statement in regard to subsistence. This policy has been incorporated into the Proposed Plan and provides clear guidance for the protection of subsistence.

COMMENT NO. 10

There should be no increase in federal land ownership in this area through exchange or by any other means.

REPLY

The land exchanges outside of the WMNRA boundaries which were proposed in the Preferred Alternative in the Draft RMP/EIS have been dropped. However, State lands within the boundaries are still identified for possible acquisition through exchange in the Proposed Plan. We believe it would enhance the resource management objectives of this plan if such lands within the WMNRA were under a single management agency.

COMMENT NO. 11

Leasing of locatable minerals is cumbersome and overly restrictive. Areas of the WMNRA which are to be opened to mineral development should be opened to entry under the 1872 Mining Law.

REPLY

Section 1312 of ANILCA withdrew all lands in the WMNRA from location, entry, and patent under the United States mining laws. It also gives the Secretary authority to permit the removal of minerals through leasing, but he may not reopen the lands to entry.

Detailed Letters and Replies

Letters which contain comments not addressed in the Summary of Substantive Comments are reproduced here. Those parts of the letters which do refer to comments in the Summary are referenced with the letter "S" and a number; for example, "S-4" indicates that the comment is addressed in the reply to Comment No. 4 in the Summary of Substantive Comments. Other comments are numbered and answered in this section.

BUREAU OF LAND MANAGEMENT
MAR 30 9 14 AM '84
DISTRICT OFFICE
FAIRBANKS, ALASKA

SR# 20086

Roger C. Burggraf, [redacted]
[redacted]
Fairbanks, Alaska 99701

March 23, 1984

RE: Steese Conservation Area & White Mountains Recreational Area
Resource Management Plans and Environmental Impact Statements

The Fairbanks Branch of the Alaska Miners Association has some reservations regarding the above plans and would like to make the following general comments concerning both plans:

S-10 1) We are opposed to the land exchanges between the state and federal government as outlined in Map 2-5 of Steese National Conservation Area plan and Map 2-5 of the White Mountains Recreation Area plan. Some of these lands have high hardrock mineral potential. It is felt the state could better manage these lands for mineral development and the non-mineralized lands could be retained by the state to be utilized for the benefit of the people of Alaska.

S-2 2) Certain Special Management Areas (SMAs) have been set up under the plan. It is our understanding that these areas will be open for mineral development. We would like better clarification as to what management techniques are going to be employed to manage these areas. It is our understanding that the 3809 regulations will be more rigidly enforced in these areas and that bonding will be required. Hopefully present mining operations that are operating at a profit will not be so severely restricted that they will be forced to shut down as a result of new restrictions.

3) In respect to Limited Mining Development Zones, what are the restrictions that will apply to mining ventures currently in operation in these designated areas?

1 4) What are the view shed restrictions?

2 5) Existing RS 2477 roads should be delineated and access assured.

S-4 6) In reviewing the Mineral Terrane and Occurrence maps it was noted in some cases they were seriously deficient. The Division of Mining of the Department of Natural Resources submitted data to you for inclusion in the plan. I am submitting copies of these maps and reference data and request the the information be incorporated into both plans.

7) Under ANILCA Title 13-1038, boundary adjustments can be made deleting up to 23,000 acres from both areas under consideration. This can be done by Secretary of Interior without congressional approval. A map showing those areas the Alaska Miners Association was requesting be deleted was submitted to the Anchorage office of BLM. It is requested that consideration be given to the Association's request.

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BUREAU OF LAND MANAGEMENT
MAR 30 9 14 AM '84
FAIRBANKS, ALASKA

Comments on the White Mountains Recreation Area:

S-4 1) Mineral Terranes Map - Area Plan is deficient as noted by the Division of Mining Department of Natural Resources submittal. See attached maps and references compiled by Jeffrey Burton, Mining Engineer, Division of Mining. Please incorporate the data presented in your final plan.

3 2) During the workshop hearings it was mentioned under Alternative E that 71% of the land would be available for leasing. Please refer to the attached Mineral Occurrence and Mineral Terrane overlay. When overlaid on other maps (see maps 2-9, 2-10, 3-1,3-2,3-6) which reflect restricted or closed to mineral entry land uses in the plan, over 65% of the mineral ground will be closed to mineral leasing and development. Was this the intent of congress to lock up our nation's "crown jewels" -- our mineral resources?

4 3) The plan does not state what type of mineral leasing will be made available. The Alaska Miners Association has given input as to our preference to a discovery/location type of lease. It is hoped it will allow the small miner to operate within the confines of any leasing system. What are lease stipulation guidelines?

S-10 4) The Fairbanks Branch of the Alaska Miners Association is opposed to the prooosal in Map 2-5, land to be acquired through exchange. The land in question is mineralized and it is felt the state can better manage these lands for mineral development, and for the benefit of the Alaskan people.

S-2 5) Map 2-10 shows a special Management Area for Wildlife. What special management criteria will be utilized in this area? Will it be so restrictive as to prevent mining of ore deposits located in any areas not closed to leasing?

6) With respect to Limited Mineral Development Zones (LMDZ), what are the restrictions that apply to mining ventures in operation in these designated areas? What new regulations will be out into effect?

5 7) The fourth paragraph of page 65 states that the water quality of Beaver Creek is very good. The third sentence refers to "suspended sediment levels are low to moderate, with transport rates of 10 to 300 mg/l of sediment under natural conditions." If the above statement is correct, the water quality should be rated as poor.

S-8 8) Page 89 does not address the long term effects of mining. The study should reflect that there are benefits that should be considered.

There are numerous other comments I would like to address in the plan, but time does not permit.

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Comments on the Steese Conservation Area:

1) Mineral Terrane Map Area Plan is deficient as noted by the Division of Mines Alaska Department of Natural Resources. See attached maps and references compiled by Jeffrey Burton. Please incorporate the data presented in your final plan.

2) The Fairbanks Branch of the Alaska Miners Association is opposed to the land exchange outlined in Map 2-5. Some of these lands have high hardrock mineral potential. It is felt the state can better manage these lands for mineral development and that the non-mineralized lands being considered in the exchange should be retained by the state for the benefit of the people of Alaska.

3) Please refer to Map 2-5, a parcel of land shown in red. Under ANILCA, boundary changes up to 23,000 acres can be made without approval of congress by the Secretary of Interior. A map was previously submitted to BLM by AMA requesting the deletion of the area shown. The east boundary of the North Steese Conservation area followed the ridge line until it reached the area shown in red on the map. It then drooped down to include a portion of Crooked Creek, a heavily mined placer stream. This area is heavily mineralized and it is requested that the boundary be adjusted back up to the ridge line where it belongs.

4) Alternative E states that 94% of the Steese Conservation Area will be open to mineral entry. We have concerns with respect to Map 2-11 Wildlife Alternative E -- special management areas. There is no criteria mentioned in the plan for the management of these areas. If you use the overlays provided with my testimony ("North Steese Conservation Area" and "South Steese Conservation Area") you will note that approximately 70% of the Mineral Occurrence and Mineral Terrane lands fall under Special Management Areas. We need clarification as to what management techniques are going to be employed in managing these areas. If they are too restricitve these mineral lands may be locked up forever. Regulations must be promulgated that will allow these highly mineralized areas to be developed for the benefit of mankind.

Points we like about the SCA Plan:

1) 94% of the area will be open fo mineral location.
2) Existing 2477's will be recognized.
3) Development of improved access routes to mining ground to be encouraged so as to minimize ecological damage to the surface.
4) Allowance of ORV's 1500 lbs or less to be used in the area. (We would like to see ORV's over 1500 lbs allowed, provided their track or wheel size would provide sufficient flotation to not damage the surface.)

The plan does not satisfy all of the mining industries' needs. The Fairbanks Branch of the Alaska Miners Association has some real concerns regarding the implementation of the plan. However, we feel an effort has been made to

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balance the needs of all parties. I might add that the plan does not satisfy any one group, and I doubt if it ever will.

We in the industry consider ANILCA with respect to the Steese Conservation Area and White Mountains Recreation Plan as a National Tragedy. It took one of the most highly mineralized areas in the state of Alaska and has severely restricted the mineral development of the lands encomoassed in the above areas.

It is hoped that the "crown jewels" of this nation (its minerals) will not be locked up by unduly restrictive regulations which prevent their orderly extraction. Mining provides jobs and resources needed by this nation. We in the interior of Alaska depend on mining to support our communities and provide productive livelihoods for our people.

REPLY TO LETTER NO. 1

1. The viewshed of the Wild River would be managed to meet the objectives of Visual Resource Management Class II. This management allows changes that may be seen in the characteristic landscape, but such changes should not attract attention. Specific restrictions would have to be developed on a case by case basis since they would depend on the nature of the activity.

2. This will require cooperative action between BLM and the State of Alaska to identify such rights-of-way and determine the responsibilities and authorities associated with them. This is covered in the Support section.

3. Although Congress made provisions for mineral leasing in the WMNRA, it is clear that public outdoor recreation is to be the priority use. We recognize that in some instances, known mineralized areas will remain closed to development. This is necessary to meet the intent of the law in certain areas of high scenic value, of important wildlife habitat, or where primitive recreation opportunities are to be provided.

4. Leasing regulations for National Recreation Areas are being prepared by the Washington Office of BLM and are not yet final.

5. Transport rates on the upper end of this range would be reached only during periods of heavy rains. A range of 10 to 300 milligrams per liter of suspended sediment is not unusual in undisturbed streams in interior Alaska, and we believe it is accurate to describe the water quality of Beaver Creek as very good.

BUREAU OF LAND MANAGEMENT
MAR 30 4 25 PM '84

National Audubon Society

ALASKA REGIONAL OFFICE
308 G STREET, SUITE 219, ANCHORAGE, AK 99501 (907) 276-7034

March 30, 1984

Mike Green
Yukon Area Manager
Attn: Jeff Scott, Planning Team Leader
Bureau of Land Management
P.O. Box 1150
Fairbanks, AK 99707

Dear Mr. Green:

These are comments of the National Audubon Society on both the Draft Resource Management Plan (RMP) and Environmental Impact Statement (EIS) for the Steese National Conservation Area, and the Draft Resource Management Plan (RMP) and Environmental Impact Statement (EIS) for the White Mountains National Recreation Area. Although we greatly appreciate the hard work that BLM staff professionals put into development of the draft plans, we find both seriously deficient in numerous respects. This is particularly disappointing since the White Mountain and Steese areas were the only two national conservation system units assigned to the BLM by Congress in the Alaska National Interest Lands Conservation Act of 1980. Unfortunately, the plans as drafted confirm the reasons conservationists were reluctant to have national interest conservation lands placed under BLM for protection and management.

GENERAL COMMENTS

S-1 The title of the RMP's are very misleading in that the reader is led to believe that "Draft Environmental Impact Statements (EIS)" are included, when in fact they are not. Although alternatives to BLM's preferred alternatives along with some environmental consequences were evaluated, the documents do not meet the requirements of an EIS. The National Environmental Policy Act (NEPA) requires a much more thorough analysis including sections on mitigating measures of the proposed action, unavoidable adverse environmental impacts, relationship between local short term use of the environment and maintenance and enhancement of long-term productivity, and irreversible and irretrievable commitments. Furthermore, the EIS's fail to give emphasis to the primary purposes for which the two areas were established by Congress, i.e., public recreation and resource conservation, and to include vital information concerning important wildlife species such as caribou, Dall sheep, bears and furbearers.

The National Audubon Society strongly objects to BLM's preferred management alternative (E) for the following basic reasons:

1) Wild country (wilderness) related public recreation values will be significantly impaired by liberal mining policies and off-road vehicle (ORV) use. In fact, there are no provisions for providing true primitive recreation since ORV use will be permitted throughout the units.

S-1, S-3, S-5

2) Wilderness values of the units are totally ignored and no effort made to determine the suitability or non-suitability for inclusion in the National Wilderness Preservation System.

3) No commitment is made to properly implement, monitor and enforce regulations for activities associated with right-of-ways, mining, and ORV operation.

4. Degradation of water quality will be permitted to expedite mining and other development activities. This will result in potentially serious adverse impacts on freshwater fisheries and related wild river values.

5) Nationally significant wildlife resources including caribou, Dall sheep, grizzly bears, wolves, and furbearers will be subjected to unnecessary disturbance from motorized recreation, and intensifying harvest pressures because of liberal access policies, and growing numbers of hunters and trappers.

PREFERRED NATIONAL CONSERVATION INTEREST ALTERNATIVE

The BLM is urged to redraft the two RMP's giving emphasis to protection and management of "national interest" resource conservation and public recreation values rather than expediting mining and other developments that will threaten such values. This will require that short-term exploitive interests be rejected in favor of long-term national conservation interests as was the intent of Congress.

Major components of a preferred national interest alternative should include the following:

1) Close the two units to further locatable mineral exploration and development and patent under the United States mining laws. Conduct thorough mineral inventories before giving consideration to reopening the units to mineral entry.

Adopt reasonable regulations for all mining activities to "assure that mining will, to the maximum (emphasis added) extent practicable, be consistent with protection of the scenic, scientific, cultural and other resources of the area....."

2) Protect wild and scenic values of Birch and Beaver Creek. This will require strict control of mining activities in the headwaters of Beaver Creek and motorized access to the wild river corridors.

1 3) Spell out in detail measures that will be required to protect water quality and quantity.

4) Conduct thorough "wilderness reviews" and develop recommendations as to the suitability or non-suitability of all lands in the two units for inclusion in the National Wilderness Preservation System.

AMERICANS COMMITTED TO CONSERVATION

5) Commit to conserving the natural diversity of fish and wildlife populations and habitats in cooperation with the U.S. Fish and Wildlife Service and Alaska Department of Fish and Game.

Special consideration should be given to development of management strategies for protection of the Fortymile and Porcupine caribou herds and their ranges within the Steese NCA.

1

6) Permit only customary and traditional motorized access and restrict to designated routes and locations under reasonable regulations. Unrestricted motorized access should be prohibited'

7) Adopt the policy of encouraging "dispersed, low density public recreation" that is wild country oriented in keeping with the primitive (wilderness) character of the units.

8) Apply the "minimal tool" concept in management. Prescribed burning and wildfire should be preferred tools in habitat projects. No administrative sites should be developed for the comfort and convenience of the managers.

9) Redefine the boundaries of "research natural areas" to include all essential lands.

10) Develop interpretive and public education programs that give emphasis to national interest public recreation values.

11) Encourage scientific research, conservation education, and land management training.

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Your consideration of these comments is greatly appreciated.

Sincerely,

David R. Cline

David R. Cline
Regional Vice President

cc: Dr. Russell W. Peterson, National Audubon Society
Bob Putz, U.S. Fish and Wildlife Service
Roger Contor, National Park Service
Don Collinsworth, AK Dept. of Fish and Game
Anchorage Audubon Society, Arctic Audubon Society
Kenai Peninsula Audubon Society
Kodiak Audubon Society
Juneau Audubon Society
Other Alaska Conservation Organizations

REPLY TO LETTER NO. 2

1. All of the items in your suggested alternative have been considered in one or more of the alternatives in the EIS. Items 2, 3, 5, and 10 have been accommodated in the Proposed Plan. The other items have been dealt with as follows.

Item 1: Complete mineral closures were considered in Alternative A. Based on the analysis of impacts in Chapter III, it was decided that some mineral development is justified. Provisions for mineral inventory and regulation of mining have been included in the Proposed Plan.

Item 4: Wilderness resources and possible impacts to those resources are discussed in Chapters II and III. However, recommendations for inclusion of the units in the National Wilderness Preservation System would be contrary to Departmental policy.

Item 6: The Proposed Plan would close about 55 percent of the WMNRA to unrestricted motorized access. In other areas, use of ORVs would be monitored and further restrictions imposed if necessary.

Item 7: The Proposed Plan would designate some areas for primitive recreation, where dispersed, low density public recreation would be encouraged. There would be other areas where higher levels of use would be facilitated through improved access. We have tried to strike a reasonable balance between the different types of recreational use, based on public demand and resource capability.

Item 8: Prescribed burning is our preferred tool for habitat improvement. No administrative sites are planned.

Item 9: We believe all essential lands are included in the RNAs. Please see the reply to Comment No. 7, under the Summary of Substantive Comments.

Item 11: Congressional guidance is that we provide information concerning resources, allowed uses, and other data about the WMNRA. The Proposed Plan does this.

Citizens' Advisory Commission on Federal Areas

515 Seventh Avenue
Suite 310
Fairbanks, Alaska 997
(907) 456-2012

April 2, 1984

Mike Green
Yukon Area Manager
Bureau of Land Management
P.O. Box 1150
Fairbanks, Alaska 99707

Dear Mike,

The Citizens' Advisory Commission on Federal Areas has completed its review of the Draft Resource Management Plans (RMP) and Environmental Imapact Statements for the Steese National Conservation Area and The White Mountains National Recreation Area.

The Commission has followed the development of the RMP's for each of these areas since planning began in 1982. The time and effort spent by the BLM planning staff in developing the Management Situation Analyses and the Land Use Plan Alternatives is evident. Unfortunately, the current draft RMP's do not reflect the planning efforts that preceded them and are deficient in a number of areas.

Management of these two areas presents a number of problems which are a result of the the multiple-use concept. Both the Steese NCA and the White Mountains NRA contain a wide range of resources and values. Use of these, if not carefully monitored, will result in considerable conflict between user groups.

Both the Steese NCA and the White Mountains NRA encompass highly mineralized zones containing deposits of gold, tungsten, lead, zinc and uranium. Mineral exploration and extraction have occurred in this region, with varying degrees of intensity, since the late 19th century. Placer gold mines in the district contribute significantly to the economy of Fairbanks. There are undeveloped mineral deposits in both areas which have the potential to contribute at even greater levels.

In terms of recreation, both of these areas offer a wide range of opportunities. Becaues of their proximity to Fairbanks, they are used extensively for hiking, camping, canoeing, hunting and fishing. Portions of both areas are valued for the wilderness experiences which they offer. Birch Creek and Beaver Creek Wild and Scenic Rivers are both popular sources of recreation. Additionally, the areas provide considerable opportunities for motorized recreation both summer and winter.

Sections 401, 402, 403, 404 and 1312 of ANILCA contain the mandate under which the Bureau of Land Management will manage these two areas. The language contained in these sections clearly indicate that more active and specific management plans than those propcsed for the two areas will be needed in order to accomodate all allowable uses and at the same time comply with the intent of the legislation.

The Commission believes that mineral exploration and development can ccexist with recreational and wildlife values with a minimum of conflict provided the areas are actively managed. All existing uses can continue if the final plans are developed with more specific management directions than those currently contained in the draft plans.

GENERAL COMMENTS

The lack of adequate definitions for and discussion of the management implications of such terms as: Limited Mineral Development Zone, Research Natural Area, Special Management Area, Habitat Management Plan and Areas of Critical Environmental Concern make it extremely difficult to fully evaluate the proposed management alternatives.

For example, each plan has a very brief explanation of what constitutes a Special Management Area (SMA), but questions remain which need to be answered before the final plans are implemented. Although it is understood that each SMA will be developed individually, there must be provisions or guidelines that will be common to all.

1 An explanation of what is involved in the development of a Habitat Management Plan (HMP) should be provided. Would a separate environmental impact statement or assessment be required? Is there a timeframe for developing such a plan? What will be the cost and who will be responsible for financing any special studies if some form of development is planned? In the case of road construction, will standards and special requirements make them cost prohibitive? Can surface reclamation standards exceed those in 43 CFR 3809?

The implications of a Limited Mineral Development Zone are not adequately discussed. How will the development of valid existing claims within the zone be affected? Will there be special restrictions on mineral activity in such a zone? Is further mineral exploration to be permitted within the zone? Again, these are questions which should be answered in the final documents.

2 Research Natural Areas (RNA) are discussed in more detail, but the characteristics and values of the proposed areas should have been included in the appendices of each plan. Because of certain restrictions which will apply within a RNA, one or more resource

use will be restricted in favor of another. Insufficient information in the plans on these proposed RNA's makes it difficult to evaluate their importance in terms of the various resources they contain.

In the final plans each of the terms listed aoove should be dealt with in a seperate appendix which discusses each in terms of how guidelines will be developed and which also outlines the implementation and management of those guidelines.

3 An appendix should also be included which lists all applicable statutes and regulations under which the Steese and White Mountain areas will be managed.

ACCESS

In the sections of the plans dealing with access it is mentioned that the State of Alaska has claimed some trails as public rights-of-way under Revised Staute 2477. Those which are claimed by the State should be listed and shown on maps in the final plans.

4 Existing access points to the Birch and Beaver Creek Wild and Scenic Rivers and other roads, trails and airstrips which are available for public use should also be listed and identified on the maps.

Valid access needs which can not be accomodated in a mining plan of operations are covered under Title XI of ANILCA and 43 CFR Part 36. These cover access needs in addition to those necessary for mineral development purposes and should be addressed in the final plans.

LAND STATUS

The maps in the plans do not show the location of all non-federal inholdings and should be updated to do so. The maps for both the Steese NCA and the White Mountains NRA should also show the areas in which mining claims are concentrated and where mining is being actively pursued. This should be possible without having to show each individual claim.

Information on the locations of private inholdings and where mining activity is concentrated would be helpful in evaluating how the different alternatives and land-use classifications will affect each of these.

5

There are statements in both of the plans which indicate that non-federal lands or interests in lands within the river corridors of Birch and Beaver Creeks will be acquired whenever possible. These statements are contradictory to both of the final river management plans which state that the final river corridor boundaries do not include any non-federal lands.

Section 6(b) of the Wild and Scenic Rivers Act also states that if 50% of the entire acreage within a federally administered wild and scenic river is owned by the Federal government the Secretary of Interior may not acquire fee title to any lands by condemnation under authority of the Act. Any acquisition of a private inholding would have to be with the full consent of the owner.

Commission staff has determined from attending public meetings and talking with interested parties about the proposed land exchanges which would involve State lands that there is strong opposition from the mining community to the proposals. There is a general feeling that the opportunity for mineral development will remain greater if the land remains under State ownership.

In June 1983, there was a Notice of Intent for Proposed Exchange of Lands signed by the State of Alaska and the US Dpartment of the Interior. This proposal includes some of the same lands that are identified in the draft RMP for the Steese NCA. What is the current status of that exchange and will these proposals be pursued seperately or in conjunction with the 1983 proposal?

MINERALS MANAGEMENT

In both plans under this section it states that mineral claims examination would be initiated if the the Area Manager determined that the land was needed for a federal program. What types of programs may be involved here?

If, upon completion of a mineral exam the claim is determined to be valid, but may be in conflict with a proposed federal program, how would this be resolved? Clarification is needed on this issue.

Alternatives in the two plans call for varying levels of enforcement of the surface management regulations in 43 CFR 3809. Are there established guidelines for different levels of enforcement under these regulations? If not, how will the different levels of enforcement be decided?

6 There is concern by different groups regarding the 3809 regulations and how they will be enforced. The mining community is concerned about the levels of enforcement of 3809 regulations. There is the feeling that if the regulations are too strictly enforced and stringent reclamation requirements are imposed upon mine operators, the excessive cost of compliance will prevent miners from operating.

The environmental community is equally concerned that the regulations will not be adequately enforced due to budget constraints. There is concern that too little enforcement will result in excessive environmental damage and visual impacts.

Both groups have legitimate concerns which have not been adequately addressed by the draft plans. Does the BLM in Alaska have money budgeted for the enforcement of these regulations?

Will funding be adequate to manage at the levels of enforcement which are necessary to meet the regulatory and statutory requirements without being excessively restrictive?

There is a balance that must be achieved that will allow economic operation of mining claims and continuation of mining activity while at the same time ensuring that there is adequate protection for other resource values. Because of uncertainties about available funds and lack of detail in the plans it is unclear whether or not the plans in their present form can achieve this balance.

MINERAL LEASING

One of the major points of disagreement between different groups concerned with the White Mountains NRA is the subject of mineral leasing. The primary cause of these differences is the fact that some of the most favorable mineral terrain is also highly valued for its recreational opportunities and wildlife habitat values. Again, the potential for conflict between different uses is high and will require a more intensive level of management than is outlined in the draft plan.

The absence of any regulations makes it difficult to assess the proposal to permit leasing of minerals in the White Mountains NRA. It is understood that at this time the Washington office of the BLM is responsible for the development of these regulations. Hopefully these regulations can be prepared and approved before the final RMP for the White Mountain NRA is implemented.

It is important that the public input received on the proposed leasing regulations developed by the Fairbanks District Office in 1983 be incorporated into any regulations promulgated by the BLM. Concern has been expressed that mineral leasing regulations could prevent the small miner from operating if bonding levels are exorbitant or if development guidelines are too restrictive.

BIG WINDY HOT SPRINGS RNA

The Research Natural Area proposed in the southern Steese is also an area where conflicting resource values could be a source of diffculty from a management standpoint. The undeveloped hot springs and the dall sheep population in the area are of considerable value for research purposes. Within the same region, however, are tungsten occurences which appear to have considerable economic potential. More exploratory work will be necessary before the extent of these deposits can be fully defined. The potential for conflict is obvious.

The original proposal for the RNA in the Management Situation Analysis contained four options for the amount of acreage to be included in the area. Size ranged from a core of 160 acres to a maximum of 12,733 acres. There were two intermediate sizes of 4,400 and 8,560 acres.

In the alternatives listed in the draft RMP for the Steese NCA, there are only two options; one of 160 acres for alternatives D & E and one of 12,733 for alternatives B & C.

S-7 A medium range option rather than the two proposed options would seem more appropriate for this area because it would allow for development of any economically viable mineral properties, and at the same time offer adequate protection for both the hot springs and the dall sheep population. An intermediate sized RNA would provide greater opportunity for a more balanced multiple-use alternative in this area.

RECOMMENDATION

In each stage of the the development of the RMP's for the Steese NCA and the White Mountains NRA, the BLM has provided continuous opportunity for public input and participation into the planning process. The Commission would like to suggest that this policy continue as the final plans are developed.

Commission staff has discussed the draft plans with representatives of various groups and heard testimony and discussion at numerous public meetings. What has come to light is that there has been little public endorsement of the proposed alternatives for either plan from members of any group. It seems evident that the BLM will have to make extensive revisions before final plans can be adopted.

One method for accomplishing this task could be the formation of an ad hoc group representative of the various user groups in the Steese NCA and the White Mountain NRA. Possibly some members of the Fairbanks District Advisory Council could participate in the group. The sole function of the group would be to help in developing the RMP's for these two areas.

After formal written comments are received and compiled into a workable format by the BLM planning staff, the work group could participate in a series of sessions with the planning staff. This may be helpful in achieving solutions to the problems identified and in developing management programs and guidelines which are more responsive to the public's needs than those presently proposed.

The Commission would like to see management plans developed that provide well-balanced, multiple-use opportunities available on a continuing basis. The Commission will continue its interest and involvement in the Steese NCA and the White Mountains NRA.

Sincerely,

for Bettye Fahrenkamp, Chairman
Alaska State Senator

REPLY TO LETTER NO. 3

1. These actions and other actions necessary to implement the plan are described in the Implementation section of the Proposed Plan.

2. These terms are defined in the Glossary.

3. Laws and regulations which are most important in the management of the WMNRA, such as ANILCA and 43 CFR 3809, are referenced where appropriate. A complete listing of laws and regulations which might be applied regarding all possible actions would be extremely lengthy and would not be appropriate.

4. The Support section of the Proposed Plan outlines a joint State-federal effort to identify rights-of-way claimed under R.S. 2477 and clarify the question of access. The Proposed Plan also contains transportation corridors, which could be used as access for any purpose.

5. The scale of the maps published in the plans makes it impossible to show all non-federal inholdings, some of which are only a few acres in size. Similarly, mining claims would also be extremely difficult to depict; detailed maps and land status plats are available in the Fairbanks District Office for individuals desiring such data and information. We believe Chapter III adequately discusses the impacts of the different alternatives on mining claims.

The River Management Plan has been incorporated into the Proposed Plan as the management prescription for the river corridor. This eliminates the inconsistency you have identified.

We are aware of the objections to land exchanges, and the Proposed Plan reflects these feelings. All exchanges outside the boundaries of the WMNRA have been dropped. Exchanges for State lands within the boundaries will be pursued. Some of these lands were identified in the June, 1983 Notice of Intent. There are several complicating factors extraneous to the plan involved in that exchange. Questions about current status should be directed to our Yukon Resource Area Office.

6. An examination could be initiated if the land was needed for any of the actions outlined in the plan, e.g., construction of recreation facilities. However, such actions are usually taken as a last resort, and we do not think it likely that BLM will initiate many examinations because of program needs.

The Proposed Plan is more specific than the Draft Preferred Alternative about the implementation of 43 CFR 3809. We believe that the plan will achieve the balance between mining and resource protection to which you refer, and we also expect to receive adequate funds to meet the enforcement needs which were identified in this plan.

Northern Alaska Environmental Center

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FAIRBANKS, ALASKA 99701
(907) 452 5021

March 28, 1984

Mr. Mike Green
Yukon Area Manager-BLM
P.O. Box 1150
Fairbanks, Alaska 99707

Dear Mr. Green,

The Northern Alaska Environmental Center thanks the BLM for the opportunity to submit these additional comments on the White Mountains National Recreation Area and the Steese National Conservation Area.

While there are aspects of these plans that we find little or no problem with and, in fact, support; the inadequacies are so voluminous and objectionable it is difficult not to dwell on them. We do feel that the planning staff has, in many cases, found themselves between the proverbial rock and the hard spot. Good planning is difficult or impossible if the planners are restrained by BLM policy. Please know that our criticisms and suggestions on these plans are in no way intended to reflect upon the individual planners who have persevered under obviously trying circumstances.

We appreciate the attempts to provide increased high quality recreational opportunities, especially in the White Mountains NRA. These include campgrounds, hiking trails, cabins, and river access. Unfortunately, many of these honest attempts are overshadowed by the dictatorial constraints which will very likely create undo conflicts over these recreational resources. An example of what we mean would be the creation of hiking trails that are "closed" to ORV's in an area otherwise totally open to recreational vehicles while providing little or no money for regulatory enforcement. It would be difficult to believe that the ORV users will not tend to operate their vehicles on the trails. A well-meaning attempt by the planning staff was turned into a management nightmare by the unreasonable restraints imposed apparantly by the District Manager.

S-5 One of our major objections to these draft plans is the lack of <u>any</u> primitive non-motorized recreation. There is documentation that ORV use has the potential for severe impacts to plant communities, wildlife habitat, wetlands, riparian zones, and wildlife. A recent study by the National Park Service over proposed regulatory changes in motorized access to some Alaska National Parks includes an expansive bibliography. A 1979 document published by the Council on Environmental Quality (Off-Road Vehicles on Public Land) examines the controversy and provides a fairly expansive bibliography. Neither of the BLM draft plans mentions even a literature search concerning the potential adverse impacts of the unrestricted use of off-road vehicles under 1500 pounds.

According to CEQ: "the off-road vehicle problem is one of the most serious public land use problems that we face." They go on to say that "Positive policy commitments by the federal land management agencies are essential." The evidence indicates that ORV use easily becomes ORV abuse. Once such abuse has become a "problem" it is not so easily mitigated. We would contend that one of the major goals of planning is to prevent resource damage and resource conflicts <u>before</u> they occur. These draft plans would open up the 2.2 million acres of both conservation units to the unlimited use of off-road vehicles under 1500 pounds without <u>any</u> discussion of the potential adverse effects of such a management action nor of any specific mitigation should such resource damage become a problem.

We are also concerned that by opening the entirety of both units to off-road vehicles BLM is effectively locking out the non-motorized recreationists. It is a well-established fact that non-motorized recreationists retreat from an area used by motor vehicles. Non-motorized hunters can not compete for a limited wildlife resource against an army of Honda three-wheelers. We are concerned that BLM is not providing a full recreational spectrum especially in the White Mountains, specifically designated as a National Recreation Area. It was clearly not the Congressional intent, in designating the White Mountains as an NRA, to lock out the non-motorized recreationists. We would contend that surely there is room in the White Mountains NRA/Steese NCA for <u>both</u> motorized and non-motorized recreation.

There are indications by wildlife biologists that much of the large mammal resource of the areas are very thinly dispersed. Neither draft plan addresses how motorized hunting and/or harassment would effect that resource. There are many individuals who would maintain that some species can literally be "shot out" of some of these areas.

S-2 While we applaud the identification of "special management areas" and "limited mineral development zones" we question what these designations really indicate? The potential adverse effects of increased mineral development and off-road vehicle abuse is significant. It is impossible to determine if these SMA's and LMDZ's are valid without specific definitions and guidelines to evaluate.

S-1 The lack of specific information concerning the mitigation of adverse impacts on wildlife is disconcerting. It is difficult enough to make some of these decisions <u>with</u> the information at hand and nearly impossible to do so without the information. The public was not given sufficient information to make informed decisions on these trade-offs. Even the public workshops failed to provide the specifics for these mitigation efforts. One BLM staff person mentioned "intensive" management of caribou as a possible mitigation for lost habitat. A check with ADF&G causes one to question whether such a possibility even exists. We fail to understand how such generic actions as "controlled burns" will mitigate a loss of fish habitat resulting from a deterioration of water quality in Beaver Creek?

S-3 We have little doubt that the proposed level of mineral development in the White Mountains National Recreation Area will cause "significant adverse effects" to Beaver Creek, a National Wild and Scenic River. We are astounded that, by BLM admission, the preferred alternative for the Steese NCA has the "highest potential for adverse effects on wildlife." These actions would clearly violate Section 1312 and Section 402 of ANILCA.

We recommend the following specific changes to the draft plans:

<u>WHITE MOUNTAINS NATIONAL RECREATION AREA</u>

1. Change the off-road vehicle section to prohibit ORV use in all areas designated as "primitive" or "semi-primitive."

White Mountains NRA continued

2. Eliminate the provision for an airstrip at Victoria Creek.
3. Use the minerals management section of alternative "B"to:
   a. convert existing claims to mineral leases
   b. continue existing mineral withdrawals for approximately 65% of the NRA.
   c. restrict leasing of locatable minerals to existing claims.
4. Expand the size of all Research and Natural Areas.

1

STEESE NATIONAL CONSERVATION AREA

1. We support a modified alternative "C".
2. The northern unit of SNCA should be designated "semi-primitive, non-motorized." The southwest corner of the southern unit should be designated "primitive, non-motorized." The northern portion of the southern unit can remain motorized as in the plan. Use of all ORV's should be eliminated from all areas designated as "primitive or "semi-primitive."
3. There should be no re-recording of unperfected mining claims inside of an "LMDZ". Surface reclamation of all mining operations should be required as well as adequate bonding to ensure compliance. There should be no oil or gas leasing in a "LMDZ."
4. Special wildlife management areas should correspond to alternative "E" with specific limitations on mining and surface reclamation to protect wildlife.
5. All mining operations must comply with Alaska DEC water quality standards. All Birch Creek waters must require maintaining or improving of existing water quality.
6. The Mt. Prindle and Big Windy Hot Springs Research Natural Areas should be enlarged to the original proposals. The Big Windy Hot Springs RNA should be enlarged to the full 12,00 acres in order to adequately protect the fragile Dall sheep habitat.

These recommendations are not all inclusive. We would prefer to see a comolete re-write of both management plans. They are inadequate in scope and content, they fail to provide specific direction or information required to make reasonable decision choices, they fail to provide a full-range of alternatives, they fail to examine the potential adverse effects of a host of management actions, they are poorly written and reflect a severe shortcoming of the ability of BLM to plan for multiple use. We all expected much better. The disappointment is contagious as well as epidemic.

Sincerely;

Robert D. Warren
Executive Director

REPLY TO LETTER NO. 4

1. Each of the items in your proposal was considered in one or more of the alternatives. Item 1, ORVs prohibited in primitive areas, was partially incorporated into the Proposed Plan. Item 2 was considered in Alternatives A and B, but our final decision was to make provisions for an airstrip. This is in keeping with our goal of managing Beaver Creek as a wild river that is somewhat more accessible than the extremely remote rivers of Alaska, but not as accessible as rivers with roads leading to several put-in or take-out points. Item 3 has been partially incorporated. The Proposed Plan would continue existing mineral withdrawals for about 55 percent of the area. The Bureau does not have the authority to require conversion of existing claims to leases. Item 4 is discussed in the reply to Comment No. 7 in the Summary of Substantive Comments.

STATE OF ALASKA

BILL SHEFFIELD, GOVERNOR

CSU Planning Office
333 Raspberry Road
Anchorage, AK 99502
Phone: 267-2215

30 March 1984

DER

Carl D. Johnson, District Manager
Fairbanks District Office
Bureau of Land Management
P.O. Box 1150
Fairbanks, AK 99707

Dear Mr. Johnson:

The State Conservation System Units (CSU) Contacts have completed their review of the Steese National Conservation Area (SNCA) and White Mountains National Recreation Area (WMNRA) draft Resource Management Plans and Environmental Impact Statements (EIS). State Contacts compliment the Bureau of Land Management (BLM) for conducting workshops during the development of these plans to discuss problems and concerns in the Areas. We perceive the review of these draft plans as a continuation of the cooperative spirit exemplified by the workshops. We are, however, disappointed with the products developed from these workshops. Although the format of the plans is good, their content lacks substance and often appears to be contrary to legal mandates. Because of the major deficiencies in the documents, State CSU Contacts are refraining from choosing a preferred alternative until these problems are corrected.

We are providing extensive comments to assist you and your staff in understanding our concerns and rectifying them. Due to the similarity in the issues involved and the document formats, we have consolidated our comments as much as possible. Where appropriate, comments specific to either of the documents are identified. These comments are divided into five major categories: 1) Compliance of the plans to the requirements of the Alaska National Interest Lands Conservation Act (ANILCA) and the National Environmental Policy Act (NEPA), 2) Impacts of proposed alternatives on water quality, 3) Socioeconomic impacts of proposed alternatives, 4) Impacts of proposed alternatives on wildlife, and 5) Specific comments.

1) Compliance to ANILCA and NEPA

Both documents are seriously deficient in meeting the letter and intent of ANILCA and other pertinent legislation (i.e., NEPA).

It appears that the BLM has elected to promote mineral development to an extent that is in conflict with the management goals legislated in ANILCA.

These documents fail to satisfy the guidelines set by the federal government for compliance with NEPA. In Volume 46, No. 55 of the Federal Register, the Council on Environmental Quality (CEQ) published a discussion of the 40 most-asked questions about NEPA regulations. The following points in that summary are pertinent to the SNCA and WMNRA documents.

1 a) On page 18026 of the referenced Federal Register, the CEQ states that the range of alternatives in an environmental document must include "all reasonable alternatives, which must be rigorously explored and objectively evaluated..." and on page 18027 states that "a reasonable number of examples covering the full spectrum of alternatives, must be analyzed and compared in the EIS." (emphasis in original). The SNCA and WMNRA documents fail in this regard due to the linkage of several of the variables presented in successively intensive alternatives. For example, in order to retain a primitive recreation scenario, one must accept widespread closures to mineral development. Conversely, if mining is allowed to continue in areas other than existing claims, the plans suggest that a fully developed, intensive recreation situation must be allowed. Many local people, including miners and conservationists, feel that the intensity of development of these resources can operate independently, to some extent, especially given the potential to zone areas of high value for either (or both) resources. The BLM's method of linking the development level of these activities in successive alternatives effectively prevents them from considering the full mix of management options.

S-3 b) The CEQ defines the "agency's preferred action" as "the alternative which the agency believes would fulfill its statutory mission and responsibilities giving consideration to economic, environmental, technical, and other factors." The ANILCA established some unique conditions regarding the management of these areas. For SNCA, there is language requiring the maintenance of environmental quality, and the special value of caribou habitat and Birch Creek (Sections 401 and 402). For the WMNRA, ANILCA requires provisions for public recreation benefits and conservation of natural resources while allowing only such developments that will "promote, or are compatible with, or do not significantly impair public recreation and conservation" (Sections 403 and 1312). In light of this language it is questionable if BLM has met the NEPA requirement in its preferred alternatives. In the SNCA, the level of mineral entry and development outlined in the preferred alternative is expected to negatively affect caribou habitat and further degrade water

quality problems in Birch Creek. In the WMNRA, BLM has gone to great lengths to open as much of the area as possible to mineral entry, leasing or development, potentially conflicting with the ANILCA sections cited above. Any development must be managed to minimize impacts and adverse effects on recreation and wildlife habitat and not greatly alter the natural character of the environment or disturb important wildlife habitat.

S-3 c) While the identification of the environmentally preferred alternative is not required until the stage of writing a Record of Decision, it is clearly implied that the BLM has decided to choose an option other than that which is environmentally preferable. This decision appears to conflict with the legislation creating these Areas.

S-1 d) Section 1508.8(b) of NEPA requires that an EIS identify all the indirect effects that are known and make a good faith effort to explain the effects that are not known, but are reasonably foreseeable. While these EIS documents make general reference to such impacts, the lack of possible mitigation suggests BLM is not meeting the CEQ demands (Page 18031 ibid.), fulfilling its responsibility to make an informed judgement and is ignoring "these uncertain, but probable, effects of its decisions."

S-1 e) One of the greatest shortcomings of the SNCA and WMNRA documents is the treatment of mitigation. "Once the proposal itself is considered as a whole to have significant effects, all of its specific effects on the environment (whether or not "significant") must be considered, and mitigation measures must be developed where it is feasible to do so." (emphasis added) (ibid., Page 18031). Thus, it is not satisfactory merely to infer that mitigation will take place and solve impact problems (as the SNCA and WMNRA documents do), but the measures to be used must be developed and presented for review in the EIS. On the other hand, if it is not feasible to develop such mitigation, then it is not reasonable to expect mitigation to be effective at lessening impacts. In view of the legislative language in the case of these Areas, such a situation should cause BLM to seek a preferred alternative more in keeping with the intent of Congress.

2 In addition to the requirement to develop mitigation, the CEQ directs that in order "to ensure that environmental effects of a proposed action are fairly assessed, the probability of the mitigation measures being implemented must also be discussed" (emphasis added). The CEQ later states that "If there is a history of non-enforcement or opposition to such measures, the EIS and Record of Decision

should acknowledge [it]..." (ibid, page 18032). These statements seem to be tailored to BLM's reliance upon the 43 CFR 3809 Surface Management Regulations, which are the only specific mitigation measures referenced in the EIS's. To the best of our knowledge, BLM has not actively enforced these regulations in the past; an explanation of whether and how things will be different in these Areas in the future is definitely warranted, especially in light of traditional budget problems.

3 f) The NEPA requires that, in cases where uncertainty exists as to impacts to the environment, a worst case analysis should be performed. Given the inadequacy of the mitigation sections of the EIS's, and the uncertainty of the effects of potential activities resulting from the preferred alternatives upon habitats for "featured" species, such an analysis is warranted, but not included, in the draft documents. For example, there is the possibility for portions of these areas to become unusable for caribou and grizzlies and for fisheries habitat and recreation values to be degraded.

4 g) Finally, the documents fail to satisfy requirements of ANILCA Section 1008 for the opening of lands to mineral leasing. The draft plans for SNCA and WMNRA propose to open 94% and 71%, respectively, of these Areas to oil and gas leasing. However, they do not present any discussion concerning potential environmental impacts from exploration and development activities and present only limited discussions on the oil and gas potential and environmental resources of these areas. Section 1008(b)(1)(A) of ANILCA states that "In such areas as the Secretary deems favorable for the discovery of oil and gas, he shall conduct a study, or studies, or collect and analyze information obtained by permittees authorized to conduct studies under this section, of the oil and gas potential of such lands and those environmental characteristics and wildlife resources which would be affected by the exploration for and development of such oil and gas." This wording clearly dictates that areas to be considered for opening to leasing should be deemed as favorable for discovery of oil and gas and that studies should be conducted to determine the oil and gas potential and the probable impacts on environmental resources from exploration and development activities. Neither the SNCA nor the WMNRA draft plans meets these criteria.

The only discussion concerning the potential for oil and gas discoveries in the WMNRA plan occurs on page 72 as follows: "Oil and gas potential for WMNRA is generally low. The most promising part of the unit for oil and gas is the area adjacent to the Yukon Flats National Wildlife Refuge." Likewise, a similar discussion is presented in the SNCA

plan: "Oil and gas potential for the Steese NCA is generally low, but potential is somewhat higher in the basin areas." Neither of these statements can qualify as a study of the oil and gas potential of these lands.

2) Impacts on Water Quality

5 We wish to call BLM's attention again to the fact that Water Resource Management statements made for alternatives B, C, and D of both plans are inconsistent with the Alaska Water Quality Standards as promulgated in 18 AAC 70 (waters within both of the Areas are presently classified for drinking water use and must meet Alaska Drinking Water Standards). Inconsistencies occur in the Water Resource Management Section on pages 35, 47 and 55 of the SNCA plan and on pages 33, 42 and 47 of the WMNRA plan.

The following excerpt from the Alaska Department of Environmental Conservation's 20 July 1983 letter, forwarded to Carl Johnson on 2 August 1984, regarding the Steese and White Mountains Land Use Plan Alternatives reiterates these concerns:

"1. We recommend that a statement similar to the one made in Alternative A, Water Resources, be made for all alternatives regarding cooperation between BLM and the Alaska Department of Environmental Conservation (ADEC) in water quality management. This is of paramount importance since ADEC has the responsibility for the protection and maintenance of the quality of Alaskan waters and their uses.

2. We wish to point out that the Procedure for Reclassification of Waters of the State are prescribed in 18 AAC 70.055 and require a public hearing. Presently the reclassification of waters of the State is the exclusive procedure by which the department will change the use designations of waters. The rivers and streams within the White Mountain/Steese Land Management areas must meet the most stringent water quality criteria of all included uses. Therefore, BLM management may be inconsistent with the Alaska Water Quality Standards, should BLM attempt to manage these waterways for less stringent uses; namely,

Alternative B for secondary recreation,
Alternative C for growth and propagation of fish,
Alternative D for growth and propagation of fish within the wild and scenic corridor, or for industrial water supply in all other areas.

We urge the developers of these land management plans to investigate the procedure and legal processes of the reclassification regulations.

3. For any area where future mineral development may occur the land manager should be responsible for ensuring that terrain limitations will not inhibit or prevent adequate wastewater treatment practices from being employed; e.g., setting ponds in narrow, steep canyons. If a review of a mining application and a predevelopment visit to the site reveals that a potential operation will have difficulty constructing and/or maintaining a wastewater treatment system, then the land manager should disallow the development until an adequate wastewater treatment scheme is developed."

Sport fisheries occuring in the Areas are centered around Birch and Beaver Creek and their tributaries, mainly for Arctic grayling. Current sport fishing regulations and bag limits allow for the safe continued harvest of all sport fish found in these two Areas. Portions of both Birch and Beaver Creeks are under the federal classification of National Wild and Scenic Rivers. Both river systems are subject to placer mining activities, Birch Creek receiving much more mining pressure than Beaver Creek. It has been well documented that placer mining activities have adverse impacts on the aquatic biotic community. No where in these plans is there mention of enforcement of Federal Environmental Protection Agency Water Quality Laws nor is there mention of improving existing water quality conditions. Until the placer mining issue is resolved, the identification of crucial fish habitat and possible rehabilitation of streams as suitable fish habitat are not practical.

3) Socioeconomic impacts

These documents acknowledge that subsistence uses of the two Areas occur and that such uses must be given special consideration under terms set forth in Section 810 of ANILCA. The alternative management plans proposed are also attentive to the impacts each would have on local resource use patterns, both in and outside of the two Areas. We commend the BLM for addressing these important issues in the draft documents. Yet BLM should acknowledge the potential incompatibility of recreational and mineral development schemes with the local uses of fish and wildlife resources and whether the BLM's proposed management and mitigative strategies will be actively implemented and enforced.

Birch Creek village residents, for example, express continuing concern for the impacts placer mining operations in the two Areas might have on water quality in streams used for fishing and as sources of drinking water. This community has experienced such problems and believes the situation might be exacerbated if

additional mining operations are permitted. We encourage BLM to carefully evaluate any existing problems in the context of environmental assessments (EA) done prior to issuing leases for placer mining operations. The EA's also should assess the impacts of long-term fisheries habitat disruptions on local uses of water bodies for subsistence purposes. Consideration should be given to the cumulative effects of mineral development activities over time on fish and wildlife habitat in areas used by local residents near the two Areas.

State CSU Contacts cannot properly evaluate the present alternatives due to inadequate information on the socioeconomic impacts of each. The following questions should be addressed before a final alternative is selected:

a) Will the local communities of Central/Circle Hot Springs, Circle and Birch Creek benefit in increased employment and business opportunities?

b) What social impacts will occur on the above communities in regard to housing, subsistence lifestyles, traffic, improved access to Fairbanks, etc?

c) What are the employment opportunities of the various alternatives in tourism, mining, forestry, trade, and services? Will these changes diversify and stabilize the local community's employment or add to the seasonal nature of current employment?

6

d) To what extent will development of these recreational areas compete with other recreational resources in the area, particularly private resources?

e) To what extent are the harvest of timber resources available and economically practicable?

f) What is the current frequency of recreational users? What would be the expected number under the various alternatives?

We realize that much of this information will be difficult or impossible to measure accurately. However, before large areas are opened or restricted from potential mining and timber harvest, the socioeconomic impacts need to be better defined.

Following its publication last fall, we provided a copy of Richard Caulfield's report, Subsistence Land Use in Upper Yukon-Porcupine Communities (Alaska Department of Fish and Game (ADF&G), Division of Subsistence Technical Paper No. 16), to BLM's Yukon Area Manager. When we obtain additional resource use information for communities near the SNCA and WSNRA, we will make it available to the BLM. We also welcome the opportunity to work cooperatively with the Yukon Planning Area staff on matters of mutual concern, but would recommend that the planning team add a

person with a background in regional planning or regional economics. Such experience in evaluating the economic and social impacts of such projects would improve the analysis of the plans.

4) Impacts on Wildlife

The wildlife sections in both documents are inadequate. They do not satisfy criteria stated in the drafts, nor do they discuss some important species (e.g. grizzly bears). These sections should be expanded to include information on approximate population numbers, densities, trends and human uses (such as harvest or hunter/days) of each major wildlife species. The wildlife impacts of the various options are quite generalized, yet some proposed land use practices will undoubtedly impact some species differently than others. These plans should be rewritten so that the impact(s) on each major species by each alternative is projected (i.e. impact of mining on caribou winter range, calving areas, sheep lambing areas), and they should ensure that habitat management is consistent with ADF&G wildlife species management objectives for the Areas.

Neither of the plans adequately address how proposed development under preferred Alternative E will impact caribou movements and habitat. Although the Steese and White Mountains Areas receive only light caribou use at present, this situation will change as the Fortymile Herd becomes larger. When the population goal of 50,000 animals is achieved (ADF&G projects 10-15 years) most of the currently unused range will once again be occupied as it was during the 1950's. Large-scale migrations across the Steese Highway will probably occur again. Any surface management plans must take this situation into consideration and long-term management decisions which greatly alter the character of the environment and disrupt important wildlife habitat should be avoided.

7

The EIS's planning criteria state that the alternative selected must insure ADF&G caribou populations objectives can be met. These criteria conflict with Alternative E; the EIS states under "Environmental Consequences" that this alternative has the highest potential for adverse effects on wildlife. The EIS provides no examples of how adverse effects of mining will be mitigated, so there is no information with which to judge the effectiveness of the mitigating procedures. It should also be noted that some development in some areas cannot be mitigated (i.e. calving and lambing areas, wilderness species such as sheep and grizzly bear which need large expanses of undisturbed habitat) even in special management areas, where BLM will presumably have special stipulations in effect.

5) Soecific comments

The following comments pertain to both plans, however the page numbers refer to the WMNRA plan unless specifically noted otherwise:

Table of Contents, List of Maos - A map depicting areas open to mining should be included with each alternative.

Page 1, para. 4-8. This is the first place that the linkage between increasing levels of recreation development and mineral development is apparent, although it is a recurring theme throughout the document (see page 2 of this letter).

8 Page 1, para. 6-8. These discussions should point out that increased potential impacts are associated with the increasing levels of use "opportunities" contained in these alternatives. Also, BLM should recognize that access "improvement" from one perspective may be detrimental from another and should use a more objective term in this case. Finally, the statements declaring that wildlife and other resources will be protected are unsubstantiated, both here and elsewhere in the EIS. They are misleading to the public and should be removed or clarified.

9 Page 2, para. 1. The statement referring to the preferred alternative allowing "such utilization of valuable resources as will promote or not significantly impair public recreation" is also unsubstantiated. This alternative definitely has a potential to impair recreational use, and therefore conflicts strongly with the intent of ANILCA for these areas.

Page 7, para. 2. In the Issues Summary, the BLM identifies conflict between mineral and recreational resources but fails to state that recreation resource considerations will take precedence over other uses in accordance with the language of ANILCA. In general, despite the statement that the six issues need to be addressed in these documents, the issues receive inadequate attention later in the document.

10 Page 8, Planning Criteria. The criteria concerning mineral activities are in direct conflict with the ANILCA language regarding acceptable activities as well as with the first planning criteria addressing recreation. In order to meet the intent of ANILCA, such statements should be qualified. Does BLM intend to include opportunities for mineral exploration, development, and extraction even if it does not promote, or is incompatible with, or impairs recreational values? Mineral resource planning criteria belong in the same place as other values incidental to the purpose of the Areas, that is, they will be allowed to the extent they do not conflict with primary resource values (see penultimate criterion).

Page 8, Criterion for Selection of Preferred Alternative. The criterion providing for acceptable management costs is reasonable, however, the document later suggests it is a valid reason for not dealing with water quality impacts asscciated with the preferred alternative.

Page 13, para. 1-3. As mentioned earlier, the alternatives presented are inadequate to fulfill the NEPA requirements. Additional alternatives proposing different mixes of uses should be examined, or discarded with appropriate explanation, as NEPA requires.

Page 13, Intensive vs. Limited Management. The only concrete differences between these options is that BLM will apply surface management regulations only selectively in the latter option. Due to the concern for reasonable cost (see Criterion for Selection of Preferred Alternative) habitat management other than the use of prescriptive fire (wild or ignited) is unlikely and, therefore, is not a significant difference between these categories.

S-1 Page 14, Special Management Areas. These high value habitat areas receive no more special management than is available at the BLM Authorized Officer's discretion for land use proposals on any piece of public land managed by BLM. In fact, there is not even a commitment to use surface management regulations in these areas. This is the first of several places in the document where BLM fails to fulfill NEPA requirements that mandate that mitigation be developed in an EIS, rather than mentioned as a possibility.

Page 24, para. 1. We agree that the surface management regulations should be strongly enforced on the existing claims in the WMNRA. The text fails to say what "More field inspections..." is in reference to and it should be clarified.

S-6 Page 24, para. 6. The opening of all lands to mineral exploration in Alternative B is not justified in the text. It appears to originate from the Planning Criteria regarding mineral development, already discussed as being contradictory to the intent and language of ANILCA.

S-5 Page 28, para. 2. The unrestricted use of ORV's weighing less than 1500 pounds GVW in an alternative classifying 74% of the WMNRA for primitive recreation needs further clarification.

Page 33, 42 and 47. Water Resource Management for Alternatives B, C & D - In these sections, BLM is proposing to manage water quality to a level of quality lower than required by existing State standards. While BLM can propose reclassification of streams to standards different than existing ones, it is inappropriate for BLM to pre-empt the State of Alaska's rights to manage its waters to needed standards (see comments on page 3 of this letter).

The statements on water resource management in Alternative D are in direct conflict with statements within the alternative on fisheries resources. How can the "Maintenance and enhancement of all fish habitat" as a fisheries objective be resolved with the stated aim of managing areas outside the Beaver Creek Wild and Scenic River for "industrial water supply?"

S-2 Page 37, para. 3. The Limited Mineral Development Zone is introduced into the discussion as an undefined management category, the effects of which remain nebulous. Please clarify.

Page 38, para. 2. See comment for Page 24, Para. 6, above.

S-1, S-3 Pages 48-58 Description of Alternative E. The Preferred Alternatives contain many of the aforementioned problems and do not meet the goals for SNCA and WMNRA as identified in ANILCA, since many activities which will likely impair recreational uses are promoted. In general, the Preferred Alternatives allow exploration and development over as much of the Areas as is conceivably possible without adequately describing mitigation that would protect them, according to the purposes for which they were designated. Internal contradictions abound in these alternatives, including those between minerals and recreation, minerals and wildlife, minerals and/or recreation with wildlife, subsistence and many uses, etc.

The water resource management sections vary greatly from previous alternatives in that no specific targets for management are identified. Clarification is needed as to whether BLM is committing to manage for the standards identified in the State's classification of waters in SNCA and WMNRA. If it is BLM's intent to reduce management costs by maintaining the status quo for management, it is an admission that mitigation will be ignored.

11 Pages 61-86, Description of Affected Environment. This section is overly general. As it is currently written, this section suggests that BLM considers wildlife to be an unimportant resource in SNCA and WMNRA since most substantive material is included by reference only. We suggest the section be more detailed to avoid this impression.

Page 66, para. 5. The phrase "a few caribou, called the White Mountain Group" would be more accurate if it read "several hundred caribou..."

Page 66, para. 6. The most recent data collected from the Fortymile caribou herd indicate a minimum population estimate of 12,500 animals, rather than 10,000 as indicated here.

Page 66, para. 7. Part of WMNRA is currently used as a caribou calving area. Please clarify this in the text.

Page 67-69. The caribou and sheep maps (maps 3-1 and 3-2) should be updated to show the most recently collected movement data, available from the ADF&G office in Fairbanks.

Page 71, para. 2. Although little information is available concerning populations and trends of many wildlife species occupying SNCA and WMNRA, some data are available from the ADF&G office in Fairbanks. The BLM is requested to acknowledge these data in future drafts.

Page 72, Recreation. Trapping should be acknowledged as an important recreation and subsistence activity occurring in the Areas. It would also be appropriate to address the impacts of each alternative on trappers.

Page 79. We would appreciate clarification of what special management or protection would be provided by a "primitive" designation.

12 Page 81, Access. Existing access is described and it is mentioned that the State of Alaska claims some trails as public rights-of-way under Revised Statute (RS) 2477. In this section, a map showing all forms of existing access, including RS 2477 trails should be incorporated. Also, RS 2477 rights-of-way should be clarified by inclusion of the language similar to that found in the BLM Wild and Scenic River Plans, as follows:

> "The BLM will work cooperatively with the State of Alaska to identify all rights-of-way pursuant to Revised Statute (RS) 2477 within the unit's boundaries for administrative purposes. When rights of titles are granted directly by statute, such as RS 2477, these rights can only be adjudicated in the court system. However, for the purposes of carrying out the BLM's administrative duties, a determination may be made. Such a determination would not affect the legality of a RS 2477 right-of-way, but would provide a basis for administrative actions such as acceptance of rights-of-way applications of trespass actions."

State CSU Contacts encourage the selection of an alternative that gives the greatest possible access to all potential users, consistent with other stated objectives and constraints. Having several users jointly maintain and use a minimal number of routes is justifiable as long as the designated route is sufficient for the user's purpose. However, BLM should acknowledge that an increase in the number of visitors may lead to conflicts between users, especially recreationists and miners. Some miners may object to recreational use of roads and trails which they have constructed.

The statement regarding consultation with Department of Transportation and Public Facilities for selecting route locations through the wild river corridor is encouraging. Such cooperation is essential to adequate transportation planning and protection of resources. Also, in various places throughout the text we would appreciate having the name of the Alaska Department of Transportation and Public Facilities acknowledged correctly.

13 Page 82, para. 8. It should be noted that the community of Birch Creek is accessible during the winter months by snowmachine and dog team--not only by air or boat as is stated in the sections on "Social and Economic Conditions" in each document.

14 Pages 87-98, Environmental Consequences. The impacts section of this EIS is extremely general, underestimates the effect of mineral development, and is overly optimistic in the results of proposed (but unspecified) mitigation. Even so, the EIS states that adverse effects upon water quality (intimately related to recreation in the SNCA and WMNRA) could result from increased levels of mining, and that negative impacts will be of greater magnitude than in earlier alternatives. This conflicts with the enabling legislation for SNCA and WMNRA.

Finally, the SNCA and WMNRA document seems to have been written more as justifications for decisions already made than as documents that lay out all factors so that wise decisions can result from the process. The BLM fails to address the primary purposes of SNCA and WMNRA. Instead of managing existing (and possibly some compatible new) mining as an integral part of the Areas, BLM seems to be maximizing the mineral industry, without developing mitigation that would protect and promote the stated purposes of these Areas.

15 Page 95, para. 1. The BLM should specify how bear/human conflicts will be mitigated in the vicinity of visitor service facilities.

Page 98, Alternative E. Because Alternative E is the preferred alternative, the projected impacts should be elaborated rather than stating "similar to Alternative C".

16 Steese Page 107, para. 3. The assumption that the positive impacts of mineral development on the economy outweigh the importance of recreation, wildlife and subsistence to the local economy and other interests is unsupported by factual data. On the other hand, there are data which place an economic value on the wildlife resource and from which value is obtained without degrading the environment or developed at the expense of other renewable resources (unlike mineral development). See the Tanana Basin Management Plan for the dollar values placed on wildlife.

The SNCA and WMNRA documents are unacceptable as written. We request that BLM use the NEPA process to discover what management decisions would be appropriate for the Areas, given the mandates of ANILCA. Rather than attempting to force land uses into areas where they are not appropriate, the thrust should be to diligently explore the possible mixes of activities that would fulfill the purposes of these ANILCA units. Exploration of these possibilities was evident in early planning work sessions but the various results are not available as alternatives in these documents. We again offer to participate with the BLM planners in identifying additional alternatives and providing information. Existing mining could be managed, along with the special attributes of these areas, in a true multiple-use scheme. However, the maximization of mineral activity at the cost of other values conflicts with the special conditions stated in ANILCA.

The EIS's for these Areas must, when they are complete, provide adequate information on the impacts and mitigation resulting from the decisions made for the WMNRA and SNCA. This is necessary in order to meet the requirements of NEPA. At present, no party, whatever their perspective, can identify how any particular value or resource will fare under the decisions made in the Preferred Alternative. The BLM must specify its management intent so that it is evident how activities will be managed, what the results are likely to be (including a worst case analysis), and how (or if) the impacts can be mitigated.

Thank you for the opportunity to comment on these documents, and we look forward to continued cooperation in the development of future drafts. Please do not hesitate to contact us if we can clarify any points brought out in this letter, or if we can be of assistance in the writing of the next draft.

Sincerely,

Tina Canning
State CSU Coordinator

cc: M. Green, BLM
J. Scott, BLM
L. Parker, ALUC
S. Leaphart, CACFA
State CSU Contacts

REPLY TO LETTER NO. 5

1. We believe that a full spectrum of alternatives was considered in regard to both recreation and mineral development. The definition of the primitive classification used in the Draft RMP/EIS makes it clear that mineral development is not compatible with primitive-type recreation, due to the surface access, machinery use, and structures necessary for mining. This conclusion has been reinforced by the many members of the public who requested larger areas devoted to primitive recreation and who voiced their objections to mineral development in such areas.

2. The CEQ document you have quoted refers to "mitigation measures that are outside the jurisdiction of the lead or cooperating agencies. . . ." Surface Management Regulations (43 CFR 3809) are fully within the authority of the BLM, and, based upon the needs identified in this plan, we expect to fully enforce those regulations.

3. The analysis of effects and the discussion of mitigation measures has been greatly strengthened in the Final EIS as shown in Chapter III. Possible effects on wildlife, fisheries, and recreation are fully discussed. However, we do not believe that it is at all likely, even under a worst-case analysis, that any significant portions of the area will become unusable to grizzlies or caribou.

4. Section 1008 does not restrict oil and gas leasing to lands which are deemed favorable for the discovery of oil and gas. There is no prohibition on exploration or leasing of lands with low potential, such as the WMNRA. The discussion of the impacts of such leasing has been expanded in Chapter III, and fully satisfies the requirements of Section 1008.

5. In accordance with your comments, substantial changes have been made regarding water quality. The Bureau recognizes the State's authority over surface waters in Alaska. The Proposed Plan makes it clear that placer miners will have to meet ACEC water discharge requirements as a condition of operation. The responsibility of the Environmental Protection Agency in this area is also discussed in the Proposed Plan. The Bureau will cooperate fully with ACEC and EPA in water quality management.

6. The best available information on these points has been included in Chapter III. As you point out, it is impossible to accurately measure the detailed impacts which you discuss. However, we believe our analysis of socio-economic impacts is more than adequate for assessments of the social costs and benefits of our proposals.

7. In response to this comment, the description of wildlife resources and possible impacts to them have been expanded in Chapters II and III. Also, we have made it clear in the Proposed Plan that the Bureau will cooperate with ADF&G in wildlife management on federal lands.

We are well aware of the ADF&G population goal for the Fortymile caribou herd, as this has been taken into account in the formulation of the Proposed Plan. Crucial calving areas will be closed to mineral development, and mitigating measures have been more closely defined.

One of your major concerns seems to be the adverse impacts of mining on wildlife populations. We have clarified the mitigating measures to be applied in regard to mining on the 44% of the WMNRA which would be open to mining under the Proposed Plan.

8. These issues are fully discussed in Chapter III.

9. Public recreation covers a wide variety of uses, including backpacking, use of ORVs, hunting, wildlife photography, and many other activities, some of which conflict. An alternative designed to protect or enhance one recreational pursuit is certain to impair another. A good example is the dual effect of improved access which you noted above. Access is beneficial to those who use vehicles to recreate - it is detrimental to those who desire to escape from vehicles. These dual impacts are fully discussed in Chapter III of the Final EIS. As required by ANILCA, all alternatives give priority to recreation. Different forms of recreation are emphasized in different alternatives.

10. The Planning Criteria have been substantially revised.

11. All of these corrections and comments have been accommodated in the Final EIS.

12. The need for a State/federal cooperative effort to identify rights-of-way claimed under R.S. 2477 is discussed in the Support section of the Proposed Plan.

13. This has been done.

14. The Draft RMP/EIS was in fact part of the decision-making process which this comment calls for. Your comments and others were considered in formulation of the Proposed Plan and Final EIS and have resulted in significant changes.

15. These changes have been made.

16. This issue is fully discussed in Chapter III.

Tanana Chiefs Conference, Inc.

Doyon Building
201 First Avenue
Fairbanks, Alaska 99701
Phone (907) 452-8251

March 20, 1984

Mr. Carl Johnson
District Manager
U.S. Bureau of Land Management
Post Office Box 1150
Fairbanks, AK 99707

Dear Mr. Johnson:

Enclosed are the Tanana Chiefs Conference comments on the Steese National Conservation Area, White Mountains National Recreation Area Draft Management Plans, and Environmental Impact Statements.

Sincerely,

TANANA CHIEFS CONFERENCE, INC.

William C. "Spud" Williams
President

Enclosures

61n3

TANANA CHIEFS CONFERENCE, INC.
March 1984

COMMENTS

regarding BLM Steese National Conservation Area,
White Mountains National Recreation Area
Draft Resource Management Plan,
and Environmental Impact Statements

S-9 Generally, both documents fail to assess the results of conflicts that mineral development and associated activities and recreational activities do and will create for subsistence activities and harvestable resources.

The Tanana Chiefs Conference, Inc. has been aware for many years of the complaints of local residents of the communities of Birch Creek and Circle over the impacts of placer mining upon water quality and associated environments of Birch Creek. The blame is generally accorded to placer mining operations, use of inadequate placering technology, and lack of enforcement of water quality regulations by state and federal governments.

The BLM documents do nothing whatsoever to explain how the ongoing and future cumulative impacts of increased placer mining activities could impact local subsistence resources and resource harvests. Characteristically, the documents are vague in many areas as well as subsistence.

We see, for example, statements such as:

> Subsistence use and subsistence resources will be protected through environmental assessments of proposed actions...
>
> page 20, White Mountains

We believe that a plan should explain exactly what is planned and should not simply refer to another future planning process, such as some future environmental assessment.

61n4

The Tanana Chiefs Conference, Inc. does support mitigation of placering impacts through the required use of new and alternative placer technology such as "water recycling" (page 87, Alternative A, White Mountains). The remainder of this paragraph "Water Resources (page 87) however, speaks to "unavoidable adverse affect(s) of placer mining" in a way which prevails throughout both documents and which we find unacceptable.

We also believe that the intent of Congress in P.L. 96-487, as it established these two conservation units, is that BLM do far more than it has proposed to do within these planning documents to control mining activities in such a way so as to mitigate placering damage to surface waters.

1 It is difficult for us to see any range of alternatives in either document. We do not, for example, see any alternative presented or examined which either proposes closures to mineral activities or which requires maximum use of recycling and other technologies for use in reducing turbidity and siltation from placering.

2 With respect to habitat management we see frequent reference to "intensive management" of habitats as a proposed action. There is never any explanation as to what this means. We question how caribou habitat, for example, can be "intensively" managed, and we know of no such examples.

3 We also have to comment upon the usefulness of these documents in solicitation of responses from rural communities. We find the documents difficult to read and to comprehend, vague, very overly generalized in content, and just about useless, especially for village level input.

We feel that Congress intended that the BLM manage these areas under special forms of management which will protect certain features, resource values, and a variety of resource uses and use patterns including use by local residents.

What we see instead is a plan which, in all its alternatives, seems to maximize mineral activity without any specific or meaningful plans to mitigate impacts resulting from this emphasis, and with no emphasis upon special management plans for other values and uses.

In addition to the vague nonexplanations of how subsistence would be protected, we see other erroneous statements about impacts upon subsistence posed by various alternatives. For example:

> Human use of subsistence species would be facilitated by improved access.
>
> (pp. 48, 55, White Mountains)

4 Which species? Which uses by whom? And, of what improvements of access do you speak? Clearly, improved access over time encourages conflict with local users as new users are encouraged by such improvements to enter into harvest activities. Competition for locally available subsistence resources then likely occurs. Why is there no examination of the claimed facilitation (improvement) for subsistence users?

The "Issue Summary" (page 7 Steese) incorrectly omits the fact that there also exists a conflict between existing mining operations and local residents who utilize locally available renewable resources from Birch Creek and associated environments.

SUMMARY

In sum, the Tanana Chiefs Conference, Inc. rejects these two planning efforts and asks that they be rewritten with examination of a wider range of management alternatives for each area.

REPLY TO LETTER NO. 6

1. All alternatives proposed mineral closures in some areas, and Alternative A proposed retention of a complete closure for the entire WMNRA. The proposed Plan contains strong requirements for the maintenance of water quality; however, the decision on which technique should be used to meet these requirements is left to the individual miner. A description of the chosen technique must be included in the mining plan of operations and mining will not be allowed to proceed unless the Authorized Officer is satisfied that the technique will do the job.

2. The description of management techniques has been expanded from that which appeared in the Draft RMP/EIS (see Chapter I).

3. We have attempted to make this document easier to comprehend through more specificity.

4. The entire issue of subsistence has been reexamined and reanalyzed in light of the subsistence policy which has been formulated since the publication of the Draft RMP/EIS. This policy is attached as Appendix G. The portions of Chapter I, II, and III, which deal with subsistence have been substantially rewritten, and we believe you will find that all of your concerns have been addressed.

RECEIVED
BUREAU OF LAND MANAGEMENT
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DISTRICT OFFICE
FAIRBANKS, ALASKA

United States Department of the Interior

FISH AND WILDLIFE SERVICE

IN REPLY REFER TO:
NAES

Northern Alaska Ecological Service
101 12th Avenue
Federal Building, Box 20
Fairbanks, Alaska 99701

Mr. Carl Johnson
District Manager
Bureau of Land Management
P.O. Box 1150
Fairbanks, Alaska 99707

Re: White Mountain Recreation Area
Draft Resource Management Plan
and Environmental Impact Statement

Dear Mr. Johnson:

We have reviewed the draft resource management plan (RMP) and environmental impact statement (EIS) for the White Mountain Recreation Area (WMNRA). Many of our comments on this document are identical to those that we are concurrently providing on the Steese National Conservation Area (copy attached), particularly with respect to the treatment of preferred alternatives, the generalized and noncommital content of the document, and the lack of definitive mitigation proposals.

Specific Comments:

1 Page 8, Criteria for Selection of the Preferred Alternative: The criteria for selection of the preferred alternative presently is limited to "Mineral exploration and development which will promote, is compatible with, or will not significantly impair public outdoor recreation." This should be expanded to include the other considerations required by Section 13.12 of ANILCA, which include: "Management, utilization, and disposal of natural resources and continuation of such existing uses and development that will promote, or are compatible with, or do not significantly impair public recreation and conservation of the scenic, scientific, historic, fish and wildlife or other values contributing to public enjoyment."

S-3 Pages 48-58, Description of Alternative E (the preferred alternative): Our concerns for potential management implications of the preferred alternative for the WMNRA are very similar to those we provided on the SNCA. Only 29 percent of the WMNRA is devoted to any significant level of protection of fish, wildlife, scenic resources and primitive recreational opportunities. The remaining 71 percent of the area will be open to mineral and transportation development and unrestricted use by motorized vehicles. Degradation of water quality of Beaver Creek, which could result from opening all its major tributaries to mineral development, would adversely affect aquatic resources downstream on the Yukon Flats National Wildlife Refuge.

2 Page 53, Wildlife Habitat Management: Our letter on the SNCA draft RMP/EIS contains comments concerning the establishment of special management areas (SMA) and management practices for peregrine falcon which, in general, also apply to the draft RMP/EIS for the WMNRA. Peregrine falcon nest along Beaver Creek, near the "Big Bend." Therefore, provisions of Section 7 of the Endangered Species Act apply to this RMP/EIS. The WMNRA currently supports a resident caribou herd. The caribou calving area in the headwaters of Quartz, Champion, and Bear creeks are to be opened to mineral exploration in the preferred alternative. Sheep and sheep hunting recreation opportunities may be significantly impaired by the preferred alternative.

3 Page 53, Fisheries Management: The RMP provides general information on fisheries management for all alternatives. Maintenance and enhancement of fish habitat is the stated objective for the preferred alternative. We encourage such a management objective, but feel this objective may not be realistic with the minerals management plan for the preferred alternative, which would open most of the WMNRA to mineral development.

The RMP indicates that stream rehabilitation of Nome Creek may be undertaken to restore the stream as suitable fish habitat, but avoids the commitment. We strongly encourage such a project. If properly implemented, it would not only restore fish habitat but would enhance recreational qualities, since Nome Creek renders a convenient and commonly used access to Beaver Creek for recreational river use.

Pages 53-54, Fire Management: Our comments on the SNCA RMP/EIS apply.

Recreation Management (Page 48) and Rights-of-Ways and Other Realty Actions (Pages 54, 57): Our comments on the SNCA RMP/EIS concerning the "Encouragement" of improved access roads apply also to the draft RMP/EIS for the WMNRA.

4 Despite minor changes in wording and recognizing discrepancies in page number references, our comments made in conjunction with the draft SNCA RMP/EIS concerning deficencies of the National Environmental Policy Act (NEPA) document, generally apply also to the draft WMNRA RMP/EIS.

We appreciate the opportunity to review this document and hope you will consider and incorporate our comments and recommendations. We look forward to close cooperation in the further development and implementation of your plans. Please contact us if we can further assist your efforts or if we can clarify any aspect of our comments.

Sincerely,

Jerald Strobeck

Field Supervisor

Attachment

cc: Paul Gates, REO, USDI
Commissioner, ADF&G, Juneau
Columbus Brown, OEC, USFWS

REPLY TO LETTER NO. 7

1. Planning criteria have been modified. However, we do not believe it is necessary to quote large passages of the law in the criteria. There must be and will be compliance with all applicable laws.

2. Peregrine falcon, sheep, and caribou and the possible impacts on these species are discussed extensively in Chapters II and III.

3. The Proposed Plan provides greater protection for fish habitat than did the Draft Preferred Alternative. The Proposed Plan would open less area to mineral development, would open no areas to leasing of placer deposits, and provides more specific mitigating measures. Also, rehabilitation of Nome Creek is a definite proposal of the Proposed Plan.

4. Those comments are answered in the Proposed Plan and Final Environmental Impact Statement for the Steese National Conservation Area.

THE WILDERNESS SOCIETY

CHARLES M. CLUSEN
DEPUTY EXECUTIVE DIRECTOR
CONSERVATION

March 29, 1984

RECEIVED
BUREAU OF LAND
MANAGEMENT
APR 2 11 30 AM '84
DIST
FAIRBANKS, ALASKA

Carl D. Johnson
District Manager, Fairbanks
Bureau of Land Management
P.O.Box 1150
Fairbanks, AK 99707

Re: The Steese National Conservation Area and the White Mountains National Recreation Area Draft Resource Management Plans and Environmental Impact Statements.

Dear Sir:

The Wilderness Society appreciates the opportunity to comment on the draft resource management plans and environmental impact statements (EIS) for the Steese National Conservation Area (SNCA) and the White Mountains National Recreation Area (WMNRA). The Society is a nationwide non-profit conservation organization founded in 1935 by Robert Marshall, one of the early explorers of Alaska. The Society and its approximately 105,000 members (including 585 residents of Alaska) are dedicated to the protection and wise management of America's primeval forests, parks, rivers, shorelands and refuges and fostering an awareness and appreciation of the great values that these lands, in their natural, untrammeled state, hold for all Americans.

It is important for the Bureau of Land Management (BLM) to recognize that in developing our comments on the Steese National Conservation Area and the White Mountains National Recreation Area, we were guided by the following two particularly important facts:

(1) Congress saw fit to give special designation to these areas of BLM lands so as to provide them with further mandatory protection than that afforded to other BLM lands in Alaska; and

(2) A principle purpose of the designation of the Steese NCA and the White Mountains NRA is to provide public outdoor recreation opportunity and benefits.

It is our opinion that these draft resource management plans and EISs are inadequate. They disregard the purposes for which these units were established

1901 PENNSYLVANIA AVENUE, N.W., WASHINGTON, D.C. 20006

under the Alaska National Interest Lands Conservation Act (ANILCA). The Society is especially concerned because these plans not only fail to meet the statutory stanoards set by Congress (ANILCA Sections 1312 and 401,) but they actually threaten values that the agency was told to protect, maintain or enhance. The following generic and specific comments address the deficiencies of these draft documents and recommend actions to improve the plans and environmental impact statements.

Generic Problems

1 The Society believes that the Bureau of Land Management cannot simply relinquish its authority to oversee that the ANILCA directives for the White Mountains NRA and the Steese NCA are carried out, much less actively work against the Congressional mandates. For example, throughout both draft plans and EISs it is stated as a matter of course that the preferred alternative will have adverse impacts on vegetation, soil, water quality and quantity, wildlife, fish, visual resources, cultural resources and recreation. The plans assume that these adverse impacts are a given (i.e., that they must and will occur). This is simply not the case. The Bureau of Land Management has much more latitude in directing what adverse impacts will not be permitted on these federal lands. In fact, the BLM is directed, by ANILCA, to prevent some of these adverse impacts from occurring. The resource management plans must reflect the reason for special designations.

The specific management objectives stipulated in ANILCA for the White Mountains NRA are more preservation oriented than the guidelines for the Steese NCA, yet in both cases the intent of Congress to afford extra protection to these areas is clear. The White Mountains NRA is to weigh "public recreation and conservation values contributing to public enjoyment" most heavily while the Steese NCA stresses a program of multiple use and sustained yield of natural resources. The spectrum of values Congress addressed in establishing both of these areas in ANILCA, is in addition to the standards set for all BLM land management activity through FLPMA.) The following excerpts point out the difference in emphasis between these areas and the intent of Congress in elevating their status:

> "...the Secretary shall administer the White Mountains National Recreation Area in a manner which in his judgement will best provide for (1) public outdoor recreation benefits; (2) conservation of scenic, scientific, historic, fish and wildlife, and other values contributing to public enjoyment; and (3) such management utilization and disposal of natural resources and the continuation of such existing uses and developments as will promote, or are compatible with, or do not significantly impair public recreation and consercation of the scenic, scientific, historic, fish and wildlife, or other values contributing to public enjoyment. In administering the recreation area the Secretary may utilize such statutory authorities available to him for the conservation and management of natural resources as he deems appropriate for recreation and preservation purposes and for resource development compatible therewith." (ANILCA Section 1312,)

The directives for management of the Steese National Conservation Area are not as specific but they also reflect Congressional intent in providing additional protection for this area:

In order to provide for the immediate and future protection of the lands in Federal ownership within the framework of a program of multiple use and sustained yield and for the maintainance of environmental quality, the Steese National Conservation Area is hereby established...Special values to be considered in planning and management of the area are: Caribou Range and Birch Creek." (Section 401, ANILCA)

2 Congress clearly provided different management mandates for the two areas, yet the plans are virtually identical, demonstrating the agency's disregard for the individual qualities of the areas Congress sought to protect. Obviously Congress did not give the areas special designations so as to open them to greater development than other BLM lands in Alaska. These draft plans do just that. They provide less protection for the NCA and the NRA than the areas currently receive and actually expose these areas to more resource development than other BLM lands in Alaska. It is important to note that both of these areas were considered to have significant enough natural resource values to have been included as part of the National Wildlife Refuge System under the House passed bill (H.R. 39). (Both of these areas would have undergone the mandated wilderness study if they had been designated wildlife refuges.)

S-1 Furthermore, the environmental impact statement appears to be fatally flawed. There are no studies or analysis of wildlife habitat and use of the areas, much less of the impacts of increased development and access. Stating that there "will be adverse impacts" is not enough. The EIS should state the nature and extent of these impacts. In sum, these plans open the areas to increased development and motorized access not only with little or no knowledge of the effects this development will have on wildlife or habitat, but also in a manner contrary to the mandates of ANILCA. This is simply not good public policy in managing our nation's public lands.

Specific Problems

1. Fish and Wildlife Habitats and Populations

The environmental impact statements display a lack of existing knowledge as to the vital habitat for fish and wildlife populations. The Society believes that without this basic understanding of what is needed to sustain fish and wildlife populations in these areas the Bureau of Land Management is unable to give any assurance of how limited the adverse impacts of increased mineral development will be in these areas. In fact the BLM gives no assurance at all that the impacts will not be grave. For example, both EISs state that "the (preferred) alternative has the highest potential for adverse effects on wildlife" (WNRMA, p. 97, SNCA, p. 105).

The specifics of habitat and locations of particular species were not effectively delt with in the plans as offered to the public. In particular the caribou, Dall sheep and fish populations were mentioned but given little tangible consideration as the draft plans propose to open all these lands to ORV use and increased mineral activity. All other wildlife in these areas (moose, grizzly bear, black bear, furbearers, small game, raptors and waterfowl) were addressed in the following manner:

"Little data is available concerning populations or trends of other wildlife species in the area. Most populations appear to be healthy." (WNMRA, p. 71, SNCA, p. 73)

This information in the EISs clearly does not help in determining the effects on these wildlife populations of increased development. Furthermore, little if any, consideration is given to the historical and possibly soon-to-be-repeated, caribou winter use of the Steese. The EIS notes that the Fortymile herd is way down from its historical numbers, yet the plans contain no provisions for restoring the herd to previous levels. In fact, the draft plans open caribou areas to increased mining and ORV use. This lack of protection violates ANILCA's dictate that caribou range be a "special value" in planning and management of the Steese National Conservation Area.

The plans also note that the Dall sheep population has declined in recent years (WMNRA, p.66) yet there is no mention of what to do to alleviate this problem. Here again, as with the caribou habitat, most of the important Dall sheep habitat will experience increased mining development and access according to the White Mountain plan. The Steese NCA plan is even worse in terms of addressing the impacts on Dall sheep. Except for mentioning that Dall sheep inhabit the southern south Steese NCA unit, they seem to be ignored altogether in the plan. This herd of Dall sheep is particularly significant for maintaining genetic diversity within the species as has it been historically isolated from other sheep populations.

3 Fish populations are also adversely impacted in the draft plans, again with little knowledge of their habitat. Both plans note that "water quality, water quantity, and physical condition of the stream bottom are important features of fish habitat. Spawning areas, rearing areas, and over wintering areas are all regarded as crucial habitat. The extent and locations of these crucial areas are not known at present." (SNCA, p. 73, WMNRA, p. 71.) Yet, once again neither plan mentions either studies that have taken place or any proposed studies to determine where the crucial habitat is. Moreover, they both state that under the preferred alternative mineral development in the streams (Birch and Beaver Creek) and increased motorized use of the areas will adversely affect both water quantity and quality: "Because most of the area will be open to mineral development, this alternative presents the highest potential for adverse affects on water quality" (SNCA, p. 105). The Society believes that the impacts of development on fish habitat and populations should be clearly spelled out in the EIS for each alternative.

The wildlife Special Management Areas (SMA) seem to exist in name only. The plans fail to stipulate any priorities for protecting wildlife in these areas. The only protection given is a vague promise that, once a development project has begun, conditions will be placed upon it to somehow hold the damage below that caused by deliberate destruction.

Both plans also mention that the adverse effects of increased mining and resource use will be mitigated though increased enforcement of regulations. Yet there is no mention of where the money is going to come from for these increased mitigation measures. There is no allocation for funds in the FY '85 Budget.

4 Besides these major deficiencies in addressing fish and wildlife populations and habitat in the five alternatives given neither plan includes an alternative to maximize protection of existing resources. (Alternative A in both plans leaves ORV use unrestricted.) There is also no alternative that maintains the existing mineral closures: "all alternatives will include

opportunities for mineral exploration, development and extraction." (WMNRA, p. 8)

2. Recreation

One of the primary purposes for and uses of these areas is recreation. Both the Steese NCA and the White Mountains NRA are accessible by car from Fairbanks. Currently these areas experience heavy use by residents of Fairbanks, Eagle and Circle Hot Springs. Recreational use of these two areas is expected to increase considerably in the near future as Fairbanks grows. There is little public demand for off-road vehicle use, yet the draft plans propose to open the entire Steese/White Mountain areas to ORV's under 1500 lbs. Even though there is no problem now, the Society believes that once these increased uses are established they will be difficult to eliminate. Therefore, guidelines and regulations for ORV use should be established in these plans.

S-5 Also, although the planning criteria and maps of the White Mountains NRA and Steese NCA preferred plans indicate that the primitive recreation areas will be closed to ORV use, in actuality, both of the units are completely open to motorized use. "In areas where a primitive ROS classfication is to be maintained, use of vehicles of less than 1,500 pounds gross vehicle weight will be unrestricted." (WMNRA, p. 54, SNCA, p. 61) This is in direct contradiction with the Code for Federal Regulations which identifies "primitive ROS areas" as non-motorized. The result is: provision for primitive recreation in the White Mountains NRA. Furthermore, the statement that hiking trails will be kept "non-motorized" is hard to believe, when the entire area is to be opened to motorized use. Even if the trails themselves are marked as closed to motorized use, enforcement of the closure would be virtually impossible, particularly considering the inadequate funding available.

The wild and scenic rivers within these areas (Birch and Beaver Creeks) are a major source of recreation. Beaver Creek is particularly outstanding resource because of its clear waters, natural condition, and opportunities for true primitive outdoor recreation. The plan proposes to open the headwaters of Beaver Creek to new placer mining thus decreasing both water quantity and quality downstream. The current major conflict between recreational floating and placer mining will be exacerbated by this increased mining.

The plans, themselves, state:

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> "Expanded mineral development under this alternative, especially in the headwaters of Beaver Creek, could result in adverse impacts on recreation." (WMNRA, p. 95)

If this does happen, it would violate ANILCA. To have the possibility of it happening mentioned in the EIS seems to speak to the point that this should not be the preferred alternative as it shows a disregard for the intent of Congress for preserving these areas for recreation.

3. Commercial Use

The Secretary of the Interior has the authority to control surface occupancy under ANILCA, yet the plans give no indication that there will be any

such control. Both plans mention that "some impacts can be mitigated through implementation of existing surface management regulations, but there will be some unavoidable adverse impacts to recreation." (WMNRA, p. 95, SNCA, p. 97) Yet, the plans never mention what those surface management regulations will stipulate. The Society believes that in order to determine how effective the surface management regulations will be one needs to know what they will be. Also some of the potential mining claims could be unprofitable if surface management regulations are strict which miners should know before attempting to develop their claims.

Furthermore, the cites in the plans and the bibliographies show that no studies have been conducted on the mineral potential of these two areas since the 1978 U.S. Bureau of Mines study. Surely before allowing these areas to be opened for mineral development some further study of the areas should be undertaken. Just because an area is identified as within a mineral occurrence or terrain does not mean that there is any recoverable mineral in the area. The Society recommends that the plans contain a map of each area with overlays of the mineral occurrence and terrain, existing mining claims, and habitat for indicator species among other things so as to provide a clearer picture of the existing uses of these areas.

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The plans do not indicate the source of additional BLM funds necessary for the increased monitoring of the commercial uses these plans encourage. Nor does it include money for reclamation of mined areas. The plans also lack any indication of what requirements will be placed upon mineral developers in terms of reclamation. In sum, the draft plans open both units to additional commercial uses which will not contribute to "public enjoyment" and will have major adverse impacts on the natural characteristics of areas essential to public recreation values without providing any stipulations on mining or reclamation of areas. The White Mountains EIS states that the preferred alternative will result in an "irreversible commitment of resources." (WMNRA, p. 95) This alone contravenes ANILCA.

4. Access

S-5 Both areas will be completely open to motorized access. Both plans state that vegetation, soil, water quality, wildlife, fish, recreation, visual resources, cultural resources, will be in some way adversely impacted by increased access in these areas. The only positive side of increased access stated in these plans is that "summer access will be improved significantly by roads and trails constructed for recreational use or mineral development." (WMNRA, p. 95, SNCA, p. 104) The Society believes that there is really no purpose to improving the access to these areas if there is nothing worth seeing once access is improved.

5. Research

7 There is an obvious scarcity of research on the effects of the preferred alternatives on Dall sheep, brown bear and caribou in the EISs (see section on Fish and Wildlife: Habitat and Populations). The plans state that these species will experience adverse impacts but the extent and the lasting effects are not known. The same is true with fish populations, and cultural resources. That these plans and EISs are deficient for their lack of information about the resources in the areas is bad enough, but even more

pervasive is the fact that in light of this admitted lack of study of the areas, both plans push development at all costs. And the costs may well be high.

6. Staffing and Management

The preferred alternatives both state that implementation of these plans will result in a considerable increase in the cost of management:

"Implementation of this alternative will require increased commitments of resources in the recreation, minerals, and wildlife programs. The minerals program will need increased funding foe enforcement of surface management regulations, and wildlife will require funds for planning and execution of habitat imorovement projects and necessary inventories". (WMNRA, p. 92)

"This alternative projects the highest level of recreational development, and therefore will require the most construction and the highest level of visitor services. Also, this alternative has a high potential for increased mineral development, which will increase the work load in enforcement of surface management regulations, maintenance of wildlife values in the Special Management Areas, and protection of any other resources which may be put at risk." (SNCA, p. 107)

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The Society believes that the BLM should indicate how they intend to meet those increases costs. Neitner the FY'84 budget nor the FY'85 budget proposal includes increased funding for these areas. New mineral activity and the resulting disturbance of the natural characteristics of the area (White Mountains NRA) will occur as soon as the area is opened to new mineral leasing (i.e., when the resource management plan is final). All recreation facility development and monitoring imoacts of mining and off-road vehicles will be dependent on BLM funding levels. There is already concern that no funds will be budgeted for recreation or surface management of mining regulations. As it is, BLM is not adequately staffed in these areas to monitor for compliance. These plans contain no guarantee that BLM will be more capable of monitoring for compliance in the future, yet both areas are opened to additional mineral develoment.

7. Wilderness

Although Section 1320 of ANILCA releases these areas and all BLM areas in Alaska from the mandatory Section 603 FLPMA wilderness review, it does leave the option of conducting a wilderness review open to the Secretary. Former Secretary Watt issued a directive (March 12, 1981) that BLM areas in Alaska not be studied for wilderness suitability, but Secretary Clark has not made any statement as to whether or not these areas should be studied for wilderness. However, the Society believes that regardless of Secretary Calrk's inaction on this issue, Section 201 and 202 of FLPMA stipulate that all resource values be

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inventoried and considered"; wilderness is one of these values. No where in these plans is wilderness even mentioned much less considered. Plainly, the White Mountains NRA and the northern Steese NCA are suitable wilderness areas. (The White Mountains was considered for wilderness designation during the D-2 discussions.) The Wilderness Society recommends that the White Mountains NRA and the northern Steese NCA be recommended for wilderness designation and the southern Steese NCA receive further study for wilderness designation.

Recommended Action and Conclusion

The Society believes that the current draft plans and EISs fail to meet many of the legal reouirements of ANILCA, NEPA and FLPMA. These far reaching deficiencies, vagueness, and lack of resource studies in the draft plans and EISs, hinder the Bureau of Land Management in making an informed decision in selecting a preferred Resource Management Plan for the Steese and the White Mountains. Therefore, it is requested that, among other things the Bureau of Land Management:

1. Re-do the draft plan and EIS of both areas;
2. Study the existing wildlife, fish and habitat of these areas;
3. Analyze the impacts of each alternative on wildlife, fish and habitat must be done;
4. Develoo an alternative which provides for recreation as the primary activity;
5. Ensure that all alternatives contain primitive ROS objectives;
6. Designate the White Mountains and Northern Steese as wilderness and study the Southern Steese;
7. Update geologic studies of the areas and include new information as to the sites and projected values of the deposits;

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8. Include maps showing where the existing claims are located and indicate which are currently being mined;
9. Ensure that the plans reflect the reasons for Congressional designation of these areas as speical BLM areas;
10. Specify in the plans stipulations for surface occupancy, reclamation, and water standards among other things;
11. Indicate what funds will be available for additional enforcement and monitoring;
12. Clearly define Special Management Areas and Limited Mineral Development Zones (i.e.,the extent of development permitted, the special values and how they will be managed, etc.);
13. Present the plans in a clearer fashion so that the reader does not have to hunt in three or four different places to find what the environmental consequences of each alternative will be.

Sincerely,

Charles M. Clusen

Charles M. Clusen
Deputy Executive Director
Coservation

REPLY TO LETTER NO. 8

1. As you point out, BLM is directed by ANILCA to protect the lands within the WMNRA, and we intend to do so to the best of our ability. However, given the fact that there are valid existing mining claims within the WMNRA and given the fact that even an action which is environmentally beneficial, such as prescribed burning to improve wildlife habitat, also has some negative impacts, it is not possible to conceive of any alternative which will have zero adverse impacts. In accordance with NEPA, we have attempted to describe the negative as well as the positive impacts of all proposed actions. We firmly believe that all alternatives are in compliance with Congressional mandates.

2. The Bureau's proposal is in keeping with the intent of the legislation to manage, use, and dispose of those natural resources as long as such uses and developments will promote, are compatible with, or do not significantly impair, public recreation and conservation of other values.

3. Data, and analysis of that data, concerning fish and wildlife habitat have been greatly expanded from that which appeared in the Draft RMP/EIS. See Chapters II and III. Also, inventories to gather more data are proposed in the Implementation section of the Proposed Plan. We believe that the existing data is sufficient to make the decisions presented in the Proposed Plan, and new data can be used to update the plan as necessary. Mitigation measures are described in the Multiple Use Management Prescriptions section of the Proposed Plan, and the funds and manpower necessary for enforcement are identified in the Implementation section.

4. The Proposed Plan provides for ORV closures in some areas. Alternative A does maintain existing mineral closures and the identified concern would apply only to existing rights under Alternative A.

5. The Proposed Plan would not open any new ground to placer mining.

6. Surface management regulations and special stipulations are thoroughly described in the Proposed Plan. Information on mineral resources has been included. More information is still being gathered, and the Implementation section of the Proposed Plan would provide for a Minerals Resource Assessment of the WMNRA as directed in Section 1010 of ANILCA. We believe there is sufficient information to justify the decisions in the Proposed Plan. If an area open to development proves to have no recoverable minerals, there will be no development or associated damage. Funds necessary for monitoring are identified in the Implementation section of the Proposed Plan.

7. Possible impacts on fish and wildlife have been more clearly defined in Chapter III. Also, more information will be gathered. Regular plan

monitoring will insure that any unforeseen impacts will be detected, and the plan can be modified accordingly. (See Implementation in the Proposed Plan.)

8. Staffing and funding requirements are identified in the Implementation section of the Proposed Plan.

9. As you suggest, wilderness values and possible impacts to them are discussed in Chapters II and III. We will continue to abide by the Secretary's policy in considering wilderness designations.

10. All of these items were considered in preparing the Final EIS and in formulation of the Proposed Plan. Items 2, 3, 4, 5, 7, 9, 10, 12, and 13 have been accommodated. Other items were dealt with as follows.

Item 1: The Final EIS is an expansion of the Draft. However, the range of possible land use alternatives has not changed, making it unnecessary to publish another Draft.

Item 6: We must continue to abide by the Secretary's policy in considering wilderness designations.

Item 8: It is not possible to depict such small units as mining claims on the scale of maps being used. Detailed maps and land status plats are available in the Fairbanks District Office for individuals desiring such data and information.

Item 11: Funds needed for enforcement and monitoring have been identified in the Proposed Plan.

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PART TWO

White Mountains National Recreation Area

RESOURCE MANAGEMENT PLAN

GOALS AND OBJECTIVES

Overview

The purpose of the White Mountains National Recreation Area Land Use Plan is to provide the Bureau of Land Management and the public with guidelines for protecting the quality and managing the use of the White Mountains. The proposed actions recommended in this plan are a result of policy considerations, detailed technical work, an analysis of previous and ongoing studies and reports, and an evaluation of public comments.

This land use plan helps to place resource opportunities, needs and problems into proper perspective and provide a basis for the orderly development and implementation of resource conservation, preservation, management, and uses. This plan is designed to be a dynamic tool for resolving critical issues and problems.

Specific authorization for the White Mountain Plan comes from the Alaska National Interest Lands Conservation Lands Act (P.L. 96-487, ANILCA). The specific language of this Act directs that the Area shall be administered to provide for public outdoor recreational use and for the conservation of scenic, historic, cultural, wildlife values; and for other uses if they are compatible or do not significantly impair the previously mentioned values. This plan was developed using the BLM planning system as outlined in Section 201 of the Federal Land Policy and Management Act of 1976 (P.L. 94-579, FLPMA).

The White Mountains National Recreation Area is located approximately 60 miles northwest of Fairbanks. It is bounded on the east by the Steese National Conservation Area and on the north by the Yukon Flats National Wildlife Refuge. Millions of acres of State lands lie to the south and west of the WMNRA.

Current recreational opportunities in interior Alaska are available in highly developed and intensively used areas accessible by road from Fairbanks as well as remote and seldom visited areas accessible only by air. The overall management strategy for the WMNRA is to provide for a variety of public outdoor recreation opportunities emphasizing existing primitive and semi-primitive values, to protect and/or improve the water quality of Beaver Creek National Wild River and its tributaries, and to provide for multiple use of other resource values which are compatible with the recreation goals. Some areas within the WMNRA will be reserved for primitive, non-motorized types of recreation. However, these areas will not be as difficult and expensive to reach as the large wilderness areas which can be found in the National Parks and National Wildlife Refuges in Alaska and will, therefore, be available to a somewhat larger user group. Other areas will be managed for a semi-primitive type of recreation with some motorized vehicle use permitted. However, these areas will not be accessible nor as developed as the State and borough

recreation areas which exist within the Fairbanks road network and will not be as heavily used. Thus, the WMNRA will provide a necessary intergrade between the existing very accessible and very remote areas of recreational opportunities.

The primary recreation attractor in the WMNRA is Beaver Creek National Wild River. Preservation of the wild and scenic qualities of Beaver Creek and the associated arctic grayling fisheries, as well as of the high country along the White Mountains backbone, are major considerations of this proposed plan.

Activities other than recreation would be appropriate when consistent with recreation management objectives as outlined below. In areas designated for primitive-type recreation, only those activities which would not adversely affect the primitive characteristics of the area would be allowed. In semi-primitive areas, where increased access is desirable and some changes in the natural setting are permissible, a wider range of resource uses could take place.

Goals and Objectives

Goals and objectives for this plan reflect the requirements of ANILCA, the act which established the WMNRA. Resource potentials have been examined from both a regional and a national perspective.

GOAL 1: Provide for a variety of public outdoor recreational opportunities, which emphasize the existing natural primitive and semi-primitive values appropriate to the WMNRA designation.

OBJECTIVES: Improve access for recreational use of Beaver Creek within the confines and stated purpose of the Wild and Scenic River Act and the approved River management plan.

Improve recreational access to the interior highlands emphasizing primitive and semi-primitive experiences.

Establish hiking opportunities related to river floating use.

Establish backcountry hiking/horseback riding opportunities along the high ridge complex linking Cache Mountain, Lime Peak, and Mount Prindle.

Maintain natural ecosystems in order to enhance primitive and semi-primitive recreational experiences.

Provide for semi-primitive motorized recreation on the lands along the southern and western boundaries of the WMNRA.

Provide opportunities for off-road vehicle use where compatible with recreation objectives.

Protect existing scenic values within the viewshed along the Beaver Creek NWR and along the ridge complex in the White Mountains.

Maintain the spine of the White Mountains in its natural state to protect its high scenic values.

Provide opportunities for hunting, trapping, fishing, and wildlife viewing.

GOAL 2: Protect and maintain the water quality of Beaver Creek NWR.

OBJECTIVES: Meet existing State water quality standard as a minimum.

Promote a quality fishing experience in Beaver Creek NWR.

GOAL 3: Provide for multiple use where compatible with primitive or semi-primitive recreation.

OBJECTIVES: Maintain lands classified as primitive in a natural state.

Where compatible with recreation goals, permit multiple use of resources on land classified as semi-primitive.

Preserve unusual natural phenomena, which have been identified as type needs in the Ecological Reserve System, for further scientific study by designating the surrounding area as a Research Natural Area.

Maintain or improve habitat to support viable self-sustaining populations of fish and wildlife.

MULTIPLE USE MANAGEMENT PRESCRIPTIONS - MANAGEMENT DIRECTION

Introduction

This section describes the management decisions which prescribe the combination of resource uses and levels of production or protection, program constraints, and general management practices to be followed in managing the various public land resources within the White Mountains National Recreation Area. Based on management prescriptions, the WMNRA has been divided into four management units: Primitive, Semi-Primitive Motorized, Research Natural Areas, and the Beaver Creek Wild River Corridor. These management units are delineated on the Proposed Plan Map located in the map pocket. Each of these management units has a management prescription which is appropriate to the resource capabilities and management objectives for that unit.

Within the Primitive Management Unit, the intent is to provide for recreational use within a natural and undisturbed setting. Existing primitive values would be maintained and the area is closed to ORV use, with the exception of snowmachines.

Within the Semi-Primitive Motorized Management Unit, a somewhat wider range of uses, including some use of off-road vehicles, would be allowed. Access will be developed as appropriate to support prescribed uses. Recreational use will be more diversified and somewhat higher due to easier access. Other resource uses will be allowed, including mineral development, when beneficial to or compatible with outdoor recreation.

The areas of limited acreage are designated Research National Areas. These areas are reserved for scientific research and only primitive-type uses will be permitted within them.

The Beaver Creek National Wild River Corridor is managed under the Wild and Scenic Rivers Act (P.L. 90-542) and the approved river management plan (effective May 1, 1984) to protect and enhance scenic, recreational, fish and wildlife, and other similar values. The approximate one-mile wide, 127-mile long corridor traverses the WMNRA. Throughout this plan the phrase, "Beaver Creek NWR Corridor," is used to indicate the lands within the NWR boundaries as defined in the Beaver Creek NWR Plan. With adoption of this Resource Management Plan/Environmental Impact Statement, the Beaver Creek NWR Plan and the WMNRA Plan will be compatible.

The only management practice which is not defined in terms of the management units is fire management. Fire management options are drawn from the Alaska Interagency Fire Management Plan: Upper Yukon-Tanana Planning Area. There are no conflicts between the multiple use management prescriptions in this plan and the Alaska Interagency Fire Management Plan.

Prescription Common to All Management Units

Although this proposed plan divides the WMNRA into four units, some management practices will be the same throughout the Area. These general management practices are described below.

RECREATION MANAGEMENT

Management Direction

PROTECTION OF IMPORTANT RESOURCE VALUES. Important recreational resource values that make the WMNRA unique will be enhanced and protected. These values include the outstanding scenic quality of the viewshed, the natural state of the river corridor, the water quality of the river system, the fishing and hunting opportunities, wildlife viewing, short hiking opportunities from the river, and unique landforms/geologic formations, i.e., the White Mountains, Windy Gap Arch, Serpentine Slide, and Victoria Mountain.

Preservation of the Beaver Creek NWR Corridor and and adjacent viewshed is essential to meeting recreational goals and objectives for the plan. Beaver Creek has national significance as a recreational resource and is one of the main attractions of the WMNRA. River floaters enjoy the solitude and magnificent scenery while fishing for arctic grayling, hiking in the White Mountains, viewing wildlife, and enjoying primitive camping experiences. Maintaining the values of the river system and corridor are essential to recreational use of WMNRA.

The Highlands, consisting of the high-ridge complex from Cache Mountain to Lime Peak and Mount Prindle plus the White Mountain backbone and Victoria Mountain, will be managed to protect remote primitive values. These values include outstanding scenic vistas of high mountain terrain, pristine areas with virtually no evidence of manmade improvements, wildlife viewing opportunities, high ridge hiking opportunities along unimproved trails, unique landforms and geologic features, hunting and fishing opportunities, and outstanding opportunities for winter use of remote backcountry.

Within the Semi-Primitive Motorized Management Unit, values which should be protected include ORV hunting opportunities, scenic qualities, recreational access to primitive areas and river put-in, wildlife viewing, hiking opportunities in the vicinity of the White Mountain Trail and Mount Prindle and recreational mining on Nome Creek.

RECREATIONAL FACILITIES. A remote cabin program will be developed and a system of cabins will be established to accommodate recreational uses, i.e., float boating, dog-mushing, backcountry hiking, and winter uses, etc. Along with the existing Borealis cabin, cabins will be constructed in the vicinity of Wickersham Dome, Trail Creek, Fossil Creek, Windy Creek, upper Bear Creek, Lime Peak, Victoria Creek, Mount Prindle, Bear/Champion Creek, and other areas that might later be identified.

New recreational sites would be developed, i.e., campgrounds, trailheads, parking, float-trip staging area, etc., within the context of primitive and semi-primitive recreation. These sites would include a primitive campground and staging area in the vicinity of lower Nome Creek, trailheads and related new trails as shown on the Proposed Plan map.

Trails and recreational development will be located to avoid conflicts with crucial wildlife habitat and environmentally sensitive areas. Trail development would include: (1) a system of unimproved trails which would consist of limited vegetation clearing, necessary tail markers, and boardwalks to span unavoidable wet areas; (2) developed trailheads with parking, toilet facilities, signs, maps, mileage; and (3) a system of appropriately located public use shelter cabins.

The following recreation sites and recreation withdrawals outside the WMNRA along the Steese Highway and the Chatanika River will be retained under BLM management as support facilities:

1. The Cripple Creek campground and recreation withdrawal is a 21 unit campground located 60 miles northeast of Fairbanks. It will serve as a major staging area for people wishing to travel into the WMNRA.

2. The U.S. Creek recreation withdrawal north of the Steese Highway right-of-way at 56 Mile is a site that will be developed as necessary to serve as a staging area for the WMNRA.

3. The Perhaps Creek recreation withdrawal at 53 Mile Steese Highway will be retained for future development.

VISITOR USE MANAGEMENT AND INFORMATION. Public information and interpretation would be provided through development of signs, brochures, and maps. This material would be designed to facilitate greater public enjoyment and increase the public's understanding of recreational resources.

Special Recreation Use Permits would be required for commercial use, competitive events, and special uses involving over 50 participants.

Visitor use would be monitored to evaluate use patterns, needs, and impacts.

HUMAN USE OF FISH AND WILDLIFE. Opportunities for fishing, wildlife viewing, hunting, and trapping would be ensured. Fish and wildlife values are among the most significant recreation attractors to the WMNRA.

Rationale

In accordance with ANILCA, recreation is the primary use of the WMNRA, although other uses are allowable when compatible with recreation. Portions of the WMNRA of particular value to recreation are the Beaver Creek NWR Corridor and the White Mountains highlands. Preservation of

these two regions must be an important consideration in the management of the Area. Because of the proximity of the WMNRA to Fairbanks and the accessibility of the Area, several types of recreational use, ranging from primitive non-motorized to semi-primitive motorized, must be accommodated. Support recreational facilities along the Steese Highway are needed to facilitate use of access to the WMNRA.

WILDLIFE HABITAT MANAGEMENT

Management Direction

The primary emphasis of the wildlife habitat management program will be habitat protection, maintenance, and improvement. The priority species will be caribou, Dall sheep, fish, and peregrine falcon (an endangered species). The wildlife habitat management program will be implemented in cooperation with the Alaska Department of Fish and game and the U.S. Fish and Wildlife Service/Endangered Species Office.

Identification and monitoring of wildlife distribution, movements, and use areas will be done through the use of ground and aerial surveys. Information gained from monitoring will be used to assess the effects of land use activities, determine habitat condition and trends, and formulate measures to mitigate possible adverse effects on wildlife from development such as mining and the construction and use of roads.

HABITAT PROTECTION. Habitat protection in the WMNRA will emphasize protection of crucial habitats. Crucial habitats are wildlife use areas which are necessary for perpetuation of the species or population and which provide an essential element of the life cycle for that species or population. Crucial habitats for wildlife are listed in Table 9-1. Crucial habitats will be protected through the avoidance of possible adverse effects of land use activities, through mitigation, and by withdrawing specific areas from certain land use activities. Areas which are closed to mineral leasing include crucial caribou calving areas and Dall sheep habitat. The Beaver Creek NWR encompasses the presently known nesting habitat for peregrine falcon, and this area is also closed to mineral leasing.

When specific land use actions are proposed in the Semi-Primitive Motorized Unit, mitigating measures to avoid or minimize possible adverse effects will be developed through the environmental assessment process, as required by the National Environmental Policy Act and, in the case of lode leasing or valid existing rights, by the Surface Management Regulations (43 CFR 3809). As a result, it may be necessary to restrict or alter the timing, location, and extent of a proposed land use activity to avoid or minimize adverse effects. Table 9-2 lists crucial use areas and the times during which special restrictions may be required in these areas. These restrictions prohibit surface movement within one mile of the area or the use of aircraft under an altitude of 1,500 feet.

HABITAT IMPROVEMENT. Habitat improvement for moose and other species will result from the implementation of the Alaska Interagency Fire

Management Plan: Upper Yukon-Tanana Planning Unit (Map 1-1). Additionally, prescribed burns may be used to reestablish or improve habitat for moose and other species. Areas to be considered for prescribed burns include, but are not limited to, Trail Creek, Ophir Creek, Champion Creek, and Bear Creek. Over the next ten years a minimum of four prescribed burns will be conducted within the WMNRA, each improving at least 7,500 acres of habitat.

Rationale

Wildlife is a priority resource which is identified in ANILCA and which contributes to public enjoyment of the WMNRA. Hunting and/or wildlife viewing provide an important part of the recreational experience for nearly all users, including hikers, river floaters, and ORV users. Protection of crucial habitats or improvements of specific habitat is essential to maintaining this opportunity for the public. Dall sheep range between the WMNRA and the Yukon Flats National Wildlife Refuge. The proposed management for the WMNRA is consistent with the purposes of the refuge.

CRUCIAL USE AREAS FOR VARIOUS SPECIES AND SPECIES GROUPS

Table 9-1

Species/Group	Crucial Use Area
Caribou	Calving (present and historical), movement routes (present and historical)
Dall Sheep	Mineral licks, movement routes, lambing, associated escape terrain, winter range
Moose	Late winter range, mineral licks
Grizzly Bear/Black Bear	Denning (winter), seasonal high use/high prey density
Peregrine Falcon/Other Raptors	Nesting, prey gathering
Furbearers	Denning (reproduction), seasonal high use/high prey density
Waterfowl	Nesting, overwintering (potential)
Small Game	Winter concentrations
Land/Shore Birds and Small Mammals	Concentrations which are crucial for predator prey gathering
Fish	Spawning areas, overwintering areas

POSSIBLE SURFACE USE AND OCCUPANCY RESTRICTIONS
IN CRUCIAL HABITATS

Table 9-2

Species	Crucial Use Area	Dates
Caribou	Calving/movement routes	May 1- June 15 Aug 15 - Sept 30
Dall Sheep	Lambing, movements	May 1 - 31
	Mineral Licks	May 15 - July 15
	Winter Range	Oct 1 - May 1
Grizzly Bear/Black Bear	Denning	Nov 1 - April 31
Peregrine Falcon/Other Raptors	Nesting, prey gathering	April 15 - Aug 31
Furbearers	Denning	May 1 - June 15
Fish	Spawning	May 1 - Sept 1
	Overwintering	Dec 1 - April 15

FISHERIES

Management Direction

Fish habitat will be managed to maintain and/or enhance fish populations for the use and enjoyment of the recreational users of the WMNRA. Primary emphasis will be placed on habitat for arctic grayling. Management actions will include development projects to rehabilitate stream and riparian areas such as Nome Creek where past placer mining activity has altered the aquatic environment.

Measures to mitigate the impacts of development on the fishery resource are attached as stipulations to the authorizing documents (see Appendix D) on a case by case basis.

Riparian gravel sources will be used only where upland sources are not reasonably available and where any damaging impacts can be mitigated to the extent that the water quality and fisheries of the Beaver Creek system will not be significantly impaired. The gravel would be extracted in such a manner as to minimize the loss of fish and wildlife and their habitats.

Special stipulations will be placed on development activities in crucial habitat areas such as fish spawning and overwintering areas. Such

stipulations could require an alteration in the timing of activities so as to avoid disturbing or disrupting spawning activity as well as to avoid habitat alteration or loss in quality. In some cases, it may be necessary to select an alternate site.

Proponents of all surface disturbing activities will be required to use the best available technology to reduce siltation and stream turbidity to an acceptable level for fish survival and reproduction.

All placer mines and other surface disturbances will be required to be rehabilitated in such a way as to minimize future erosion.

Other specific stipulations are listed in Appendix D.

Rationale

Sport fisheries contribute to public enjoyment of the WMNRA. Most sport fishing takes place on Beaver Creek while people are floating the NWR. However, fish habitat on tributaries contributes to fish populations in Beaver Creek and should also be protected. At present, the only practical way to maintain or improve fisheries habitat is to critically evaluate all projects that have the potential to degrade the fish resource.

MINERALS MANAGEMENT

Management Direction

ANILCA provides special and specific direction on how to manage minerals. The mineral program is guided by the requirements found in Sections 402, 404, 1010, and 1312.

LOCATABLE MINERALS - VALID EXISTING CLAIMS. In accordance with 43 CFR 3809, all operators of valid existing claims within the WMNRA will be required to file a plan of operations which will include the name and mailing address of the operator (and of the claimant if the two are not one and the same), a map showing existing or proposed access, the name and serial number of the claims to be mined, proposed operation and dates of activity, type and degree of operation, and measures to prevent undue and unnecessary degradation. A reclamation plan must be included as a part of the plan of operations.

All plans will be reviewed by the Authorized Officer who has 30 days in which to assess potential environmental impacts, to approve or modify the plan of operations, or to determine that an environmental impact statement is necessary before the operation may be allowed to proceed.

Within the WMNRA, wintertime cross-country moves are preferred for the transport of equipment onto claims. Any cross-country movement of equipment will have to be approved in advance by the Authorized Officer.

LOCATABLE MINERALS - NEW DISPOSALS. In accordance with ANILCA, new disposals of locatable minerals within the WMNRA can only be made through a leasing process. No lands within the WMNRA will be opened to the leasing of placer deposits. However, the leasing of lode deposits will be allowed.

COAL AND GEOTHERMAL. In accordance with 43 CFR 3201.1-6 and 43 CFR 3400.2, neither coal nor geothermal leasing is allowed within a National Recreation Area.

SALEABLE MINERALS. Disposals of sand, gravel, rock, and other saleable minerals under 43 CFR 3600 will be made if such disposals are compatible with the other provisions of this plan.

EXPLORATION. Because of the multiplicity of exploration methods which might be employed, anyone proposing to explore for minerals within the WMNRA must contact the Authorized Officer.

RECLAMATION. All lands disturbed by any operations in the WMNRA would be reclaimed to the satisfaction of the Authorized Officer.

Rationale

Under the provisions of ANILCA, holders of valid existing rights can develop their claims in accordance with the Surface Management Regulations which provide for the protection of the environment.

Under the leasing provisions of ANILCA, new mineral development can be permitted in certain areas outside of the primitive unit as long as it does not significantly impair recreation values or use.

Extensive placer mining on Beaver Creek or its principal tributaries would be in conflict with recreation purposes because of degradation to natural and primitive values of the Beaver Creek MWR corridor and damage to arctic grayling habitat.

Section 1010 of ANILCA directs the Secretary to "assess the oil, gas, and other mineral potential on all public lands in the State of Alaska in order to expand the data base with respect to the minerals potential of such lands." The Secretary is also directed to allow for access by air for such activities. Information gathered through exploration by private companies will assist the Bureau in meeting this legal requirement. Such information, in combination with information which will be collected on wildlife and other resources, will be very useful in evaluating possible amendments to this plan. In accordance with Section 1010, all exploration will be carried out in an environmentally sound manner, with no appreciable alteration of the natural character or ecological systems of the Area.

OFF-ROAD VEHICLES, HORSES, AND AIRCRAFT

Management Direction

The type and extent of ORV uses allowed under the proposed plan depends on the designation of the unit in which the use occurs. The Primitive Unit is closed to all ORV use, with the exception of winter snowmachine use. The Semi-Primitive Motorized Unit is open to the use of off-road vehicles of less that 1500 pounds GVW. Vehicles of greater than 1500 pounds GVW could only be allowed through a specific request to the Authorized Officer. (See ORV Management Table 9-3.)

OFF-ROAD VEHICLES. The use of vehicles greater than 1,500 pounds GVW off of a valid right-of-way would be permitted by specific authorization. Such authorization would be given when necessary to provide access to inholdings and for other purposes acceptable under the terms and conditions of this plan. Authorization would be given subject to conditions designed to minimize impact to the environment or to other land uses. Authorization for vehicle use could be granted under a mining plan of operations (43 CFR 3809), through a temporary use permit (43 CFR 2800 or 43 CFR 2920), or by other appropriate means. Crossing the wild river corridor would be permitted only if there were no economically feasible and prudent alternative.

Except as indicated below, use of vehicles greater than 1500 pounds GVW off of a valid right-of-way would be limited to winter months with adequate snow cover and would be limited to existing trails where practical.

Within the WMNRA, the need to protect recreational values will, in most cases, preclude summertime movement of heavy equipment. However, under certain circumstances, a summer move may be permitted. These circumstances include, but would not be limited to, the following: (1) a one-time-only move which would be impossible in the winter, and (2) a move which would not interfere with crucial wildlife habitat.

An ORV monitoring program would be developed and implemented. This program will document existing trails and their conditions, document newly disturbed areas of cross-country use, and provide a basis for determining rehabilitation needs, monitoring recovery, and establishing a threshold as to when impacts are becoming excessive. On an interim basis, a semi-primitive area open to ORV use would be closed or restricted under any of the following four conditions:

1. A watershed would be closed to ORV use when, due to erosion and sedimentation or poor trail conditions, more than 5% of the miles of trail become difficult to negotiate with a small three-wheeler or other like-sized ORV.

2. A watershed would be closed to ORV use when water pollution from ORV trails or disturbances become noticeable in Beaver Creek or its major tributaries.

3. If there were extensive cross-country damage or rutting on trails as a result of the use of light off-road vehicles, the area will be closed to ORV use from the beginning of breakup to the time when willows and dwarf birch are in full leaf. This would allow the excess moisture from snowmelt to dissipate and the fluffing of the soil caused by winter frost action to settle, thereby reducing the tendency to form ruts from vehicle passage.

4. ORV use would be restricted or prohibited as necessary to protect recreation, wildlife, watershed and/or scenic values.

Permanent use restrictions on off-road vehicles would require an order, signed by the Authorized Officer and published in the Federal Register. Signs would be posted at access points to inform the public of use restrictions. However, where the Authorized Officer determined that ORVs are causing or will cause considerable adverse effects on resource values or other authorized uses, he/she shall immediately close the area or trail affected to the type of vehicle causing the adverse effect until that effect is eliminated and measures have been implemented to prevent a recurrence (43 CFR 8341.2).

ORV MANAGEMENT
WHITE MOUNTAINS RECREATIONAL AREA
Table 9-3

	SUMMER	WINTER
Primitive	Permit Required for any ORV use off of a valid right-of-way	No Permit Required for snowmachines of less than 1500 pounds GVW Permit Required for all other ORV use
Wild River Corridor	Permit Required for any ORV use off of a valid right-of-way	No Permit Required for snowmachines of less than 1500 pounds GVW Permit Required for all other ORV use
Semi-Primitive Motorized	No Permit Required for vehicles of less than 1500 pounds GVW Permit Required for use of ORVs of greater than 1500 pounds GVW off a valid right-of-way	
Research Natural Areas	CLOSED TO ALL ORV USE	

HORSES. The use of horses will be generally unrestricted throughout the WMNRA.

AIRCRAFT. Aircraft use will be generally unrestricted except in certain wildlife crucial habitats.

Rationale

Many members of the public feel that off-road vehicles detract from their enjoyment of the area. To others, the use of light-weight ORVs is an important recreational activity. Large off-road vehicles (those over 1500 pounds GVW) are a particular problem since they may cause environmental damage which persists long after the passage of the vehicle. However, in an area with almost no roads, ORVs are often the only practical method of reaching inholdings or accomplishing other legitimate tasks. This policy would allow the use of large ORVs when necessary and of small ORVs in specified areas, but would restrict such use to minimize environmental damage. The monitoring program will assist BLM in making future decisions affecting ORVs.

Use of horses and aircraft in the area has not created any problems and is not expected to do so in the future. Aircraft provide a means of reaching remote areas to engage in primitive recreational activities.

RIGHTS-OF-WAY AND OTHER REALTY ACTIONS

Management Direction

Under the authority of Section 503 of P.L. 94-579 (FLPMA) and Title XI of P.L. 96-487 (ANILCA), two transportation corridors will be established. One would cross upper Nome Creek from the U.S. Creek Road and extend to the vicinity of Champion Creek. The other will begin at the WMNRA boundary near the Steese Highway, extend to lower Nome Creek and provide access to a put-in point on Nome Creek which will access floatable water on the Beaver Creek NWR. Development within this second corridor will require a right-of-way from the State of Alaska since the first five miles would be located on State lands. Both corridors would generally follow existing roads or trails. The upper Nome Creek corridor would provide recreational access to the ridge complex leading to the Mount Prindle area and the highland country. Both corridors could also be used to provide access to existing and possible future mineral development.

To prevent a proliferation of rights-of-way, all future rights-of-way will, as far as possible, be located within one of these two corridors. If it becomes necessary for a right-of-way to extend beyond a corridor, existing trails will be followed whenever possible. Several users might be required to use the same right-of-way and to jointly maintain it. Holders of rights-of-way for roads or trails would be required to allow public access for recreation unless there is a compelling reason to deny such access.

Before any construction takes place, engineering studies for route selections within the transportation corridors will be conducted in order to identify pipeline, road and trail locations, river crossings, and geologic hazards.

EXCHANGES. No lands within the WMNRA will be exchanged or otherwise disposed of. Lands outside of the WMNRA in the Wickersham Done area (identified on Map 1-5) will be retained in federal ownership for recreational purposes.

OTHER REALTY ACTIONS. Other realty actions could be permitted if compatible with the land uses designated in this plan. The BLM is in the process of formulating a trapping cabin policy.

Rationale

Rights-of-way may be needed to provide access for recreation, for mining claims, or for other purposes. This plan would provide for necessary access in accordance with the provisions of Title XI of ANILCA.

Retention of federal lands outside the WMNRA in the Wickersham Dome Area will provide road frontage on the Elliott Highway. In addition, the trailheads for the White Mountains summer and winter trails are also located on these lands.

VISUAL RESOURCE MANAGEMENT

Management Direction

Scenic quality would be maintained by adhering to Visual Resource Management objectives while implementing a program of visual assessment of all surface disturbing activities, i.e., new access trails, mining activities, ORV use, support structures and developments, and recreational facilities. Specific areas with outstanding scenic qualities of special concern are the high ridge complex within the Primitive Management Unit and the river viewshed.

Rationale

The scenic quality of the existing landscape is an important part of the recreational experience in the WMNRA. Maintaining the viewshed along the Beaver Creek corridor and the background view of the White Mountain spine in their natural states is essential to complying with the wild river designation and the intent of Congress in designating the White Mountains as a National Recreation Area.

CULTURAL AND PALEONTOLOGICAL RESOURCE MANAGEMENT

Management Direction

Class III site-specific inventories will be conducted prior to any surface disturbing activity to identify, evaluate, and mitigate any

adverse impacts to resources which may be eligible for placement on the National Register of Historic Places. Historic structures will be evaluated for recreational use.

Rationale

Class I literature search, Class II inventory of Beaver Creek and Pleistocene faunal material indicate that potentially significant cultural and paleontological resources may exist within the WMNRA.

WATER RESOURCE MANAGEMENT

Management Direction

The Bureau would cooperate closely with the Alaska Department of Environmental Conservation and the U.S. Environmental Protection Agency in the enforcement of State and federal water pollution laws. All mining operations will be required to keep water-borne effluent within present ACEC and EPA limitations, and reclamation of disturbed ground would be required to prevent erosion resulting in stream sedimentation. These requirements would be enforced under the Surface Management Regulations (43 CFR 3809).

Rationale

Protection of water quality, particularly in the Wild River, is necessary to provide a quality recreation experience. The cleanness of the river bed and maintenance of a clear water fishery are critical to the recreational uses of WMNRA.

FOREST MANAGEMENT

Management Direction

Forest products would be reserved for local use only. No commercial timber harvest would be permitted.

Monitoring would be done to ensure that the authorized amount of forest products have been taken by the applicant from the location indicated in the permit and that permit stipulations have been followed. Permit stipulations could include winter cutting and movement, maintaining a set distance from waterways, and lopping and scattering slash.

Rationale

There is no timber of commercial value within the WMNRA. The demand of local residents for firewood or other forest products for personal use is limited and can be met without significant risk to resource values.

SUBSISTENCE

Management Direction

Compliance with Section 810 of ANILCA and the BLM subsistence procedures as defined in Instruction Memorandum AK 84-339 (Appendix G) is required for any action to withdraw, reserve, lease, or otherwise permit the occupancy or disposition of public lands. This is true whether the action is initiated by BLM or by some other agent, as long as BLM has the discretion to substantially affect the result. Subsistence values in the WMNRA are discussed in Chapter II of the EIS portion of this document.

Rationale

Section 810 of ANILCA requires compliance with directed procedures of this Act. In order to ensure compliance on BLM lands, further instructions have been promulgated and issued under the Bureau's IM AK 84-339, which is attached as Appendix G. The wildlife species mentioned are important to subsistence. Actions impacting these species must be analyzed under these procedures to determine the necessity of the actions and the adequacy of mitigation measures.

SENSITIVE AND RARE PLANTS

Management Direction

Inventories for sensitive and rare plants would be conducted as required for clearances for proposed surface disturbing activities. Sites will be protected by modifying proposed actions which threaten sensitive or rare plant habitats or by denying those actions which cannot be modified. If actions could not be modified or denied, plant material salvage would be attempted.

Rationale

Sensitive or rare plant habitats will be protected from activities which might alter or destroy them. They will be managed in such a way that it will not become necessary to list the plants as threatened or endangered in accordance with the Endangered Species Act.

Prescription for Primitive Management Unit

The following management prescriptions apply to the primitive areas identified on the Proposed Plan map in the map pocket. Primitive areas are intended to be managed to protect the wild and natural character of the area.

RECREATION MANAGEMENT

Egress to Beaver Creek will be improved by establishing a site for a primitive airstrip as a take-out point in the vicinity of Victoria Creek.

Short hiking trail opportunities associated with river floating trips will be established in the following areas: Fossil Creek, Windy Gap, Serpentine Slide, Big Bend, and in other areas which might later be identified in project planning. Winter trails within this management unit would also be established.

A minimum of 160 miles of trails, one campground, and six cabins would be established within this unit. These areas are identified on the Proposed Plan map.

Rationale

A strong demand for primitive recreation opportunities was expressed in the public comments on the Draft Resource Management Plan/Environmental Impact Statement. The proposed Primitive Management Unit is sufficiently large and remote to accommodate this demand.

Access to the Primitive Management Unit will be sufficient to allow primitive recreational use to increase somewhat over present levels, but will not promote lead to overcrowding or user conflicts.

FISHERIES MANAGEMENT

Management Direction

Beaver Creek fish habitat and riparian areas will be maintained so as to support viable self-sustaining populations of fish and to provide a quality fishing experience. This includes an evaluation of activities in the remainder of the WMNRA which may have negative effects on Beaver Creek.

Rationale

The key recreational use of WMNRA primitive areas consists of a combination of float boating, fishing, hiking, and primitive camping. The arctic grayling fishery contributes significantly to recreational enjoyment of the WMNRA and comprises one of the major natural resources of the Beaver Creek Corridor.

MINERALS MANAGEMENT

Management Direction

LEASING. The Primitive Management Unit will remain closed to all mineral leasing.

EXPLORATION. Anyone proposing to explore for minerals within the WMNRA must contact the Authorized Officer. Activities which conform to the management prescriptions for this unit and which will not impair the unit's primitive values will be allowed. Permits will generally not be required for helicopter landings. However, the use of off-road vehicles (except snowmachines) will not be permitted.

Rationale

The primary objective in the Primitive Management Unit is to provide opportunities for primitive recreation. The roads, structures, and heavy equipment necessary for mineral development are not compatible with the primitive recreation experience.

Section 1010 of ANILCA directs the Secretary to "assess the oil, gas, and other mineral potential on all public lands in the State of Alaska in order to expand the data base with respect to the mineral potential of such lands." The Secretary is also directed to allow for access by air for such activities. Information gathered through exploration by private companies would assist the Bureau in meeting this legal requirement. Such information, in combination with that which will be collected on wildlife and other resources, would be very useful in evaluating possible amendments to this plan. In accordance with Section 1010, all exploration will be carried out in an environmentally sound manner, with no appreciable alteration of the natural character or ecological systems of the Area.

OFF-ROAD VEHICLES AND AIRCRAFT

Management Direction

In order to prevent negative impacts to the primitive recreational experience, the Primitive Management Unit is closed to ORV use. The single exception to this closure is the seasonal opening of the unit to the use of snowmachines. Authorization will be required for the use of any motorized vehicle other than a snowmachine off of a valid right-of-way. Aircraft use will generally be unrestricted except in certain crucial wildlife habitats.

A location for a primitive landing strip for light aircraft will be designated near the mouth of Victoria Creek primarily to serve as a take-out point for floaters of Beaver Creek.

Criteria for selecting a site for location of a primitive airstrip will include: (1) meeting the minimum needs (clearance, approach, take-off, departure) for small single-engine aircraft; (2) choosing a relatively flat area that would require only minimal leveling and clearing of brush; (3) minimizing visual intrusion; and (4) minimizing the potential for conflicts with local residents.

Rationale

Winter use of the area is extremely low and winter access is difficult. Therefore, the use of snowmachines will allow some winter recreational use without causing significant user conflicts. With adequate snow cover, snowmachines cause little or no resource damage. The landing of

airplanes and helicopters facilitates primitive backcountry use. An improved landing strip near the mouth of Victoria Creek will provide safer and easier access from Beaver Creek.

Restriction of ORVs at other times of the year will minimize motorized intrusions into primitive areas during the summer and fall months when recreational use is highest.

RIGHTS-OF-WAY AND OTHER REALTY ACTIONS

Management Direction

Rights-of-way will be allowed within the Primitive Management Unit only if there is no economically feasible and prudent alternative.

Rationale

Construction of roads or trails is not compatible with primitive values but may sometimes be necessary to provide access to inholdings such as mining claims.

VISUAL RESOURCE MANAGEMENT

Management Direction

Scenic quality will be maintained by adhering to Visual Resource Management objectives as defined in the BLM Manual 8400 and as further described below.

The Beaver Creek NWR viewshed and the entire Primitive Management Unit would be managed as a VRM Class II area. The objective of this class is to retain the existing character of the landscape. The level of change to the landscape should be low. Management activities may be seen but should not attract the attention of the casual observer.

Rationale

The Primitive Management Unit contains the highest scenic quality of the WMNRA. A high level of protection is necessary to preserve the primitive recreational opportunities available in this unit.

The VRM Class II objectives are realistic under the limited degree of development allowed in the Primitive Management Unit.

WATER RESOURCE MANAGEMENT

Management Direction

Water quality in Beaver Creek NWR will be managed to preserve clear flowing and undisturbed stream and the associated floating and fishing experiences. Water resource management of the Beaver Creek system will be aimed at attaining the State's water quality standard for Beaver Creek.

A water quality monitoring program will be established by setting up sampling points along Beaver Creek and its tributaries and taking samples on a monthly basis during the summer. Sufficient instream flow will be maintained in Beaver Creek to meet the purposes for which the NWR was established. An instream flow study, already identified in the Beaver Creek NWR Plan, will be conducted to determine how much instream flow is needed for the NWR. Although there is a federally reserved water right for the NWR, it needs to be quantified.

Rationale

Maintaining both a high water quality equal or better than State standards and sufficient instream flow are necessary to meet the objectives of the NWR management plan and to provide for the principle recreation uses of WMNRA, i.e., float boating, fishing, and camping.

Prescription for Beaver Creek National Wild River Corridor

This management unit is distinguished from all others in that it is covered by an approved River Management Plan, which became effective May 1, 1984. The River Management Plan for Beaver Creek provides a detailed description of the boundaries of the river corridor, major issues and concerns for management of the corridor, and management actions. Part III of the River Management Plan, "The Management Program," is attached to this document as Appendix H and should be considered to be the multiple use management prescription for this management unit. The prescription is designed to preserve the river and its immediate environment in its natural, primitive condition, in accordance with the Wild and Scenic Rivers Act (P.L. 90-542).

This plan amends the Beaver Creek River Management Plan, completed in December, 1983, relating to ORV use within the river corridor. Except as listed below, ORV use is prohibited within the Beaver Creek NWR Corridor.

During the winter months snowmachines of less than 1500 pounds GVW are permitted. ORV use for access to inholdings can be authorized under a mining plan of operation (43 CFR 3809), with a right-of-way or permit (43 CFR 2800 or 43 CFR 2920), or by other appropriate means.

Prescriptions for Semi-Primitive Management Unit

The overall management strategy for the Semi-Primitive Motorized Unit is to allow for a wider range of recreational opportunities in combination with other uses. Because this unit is closer to the Steese Highway, it is expected that it will receive greater visitor use than the Primitive Management Unit.

RECREATION MANAGEMENT

Management Direction

Recreation management in this area will focus on facility development and motorized vehicle access. This area will often serve as a "staging area" for primitive recreation experiences.

RECREATION FACILITIES. Recreation developments will include the following:

(1) improvement of Lower Nome Creek Road as a put-in for Beaver Creek. (Development will also include a small campground, parking, and staging area.)

(2) trailheads and parking areas for trails leading into primitive areas, and

(3) development of snowmachine trails and public use cabins in the Wickersham Dome Area.

RECREATION ACCESS. Existing access will be improved, and new winter trails will be established in the following areas: Upper Victoria Creek/Colorado Creek, White Mountain Trail, Trail Creek/O'Brien Creek, Bear Creek/Quartz Creek, and in other areas which may later be identified pending further site evaluation.

Trailhead access for the interior highlands will be provided at lower Nome Creek and for the Mt. Prindle area at upper Nome Creek near the terminus of upper Nome Creek/U.S. Creek Road.

Access to Beaver Creek NWR will be improved by establishing a two-wheel drive road to a put-in point in the vicinity of lower Nome Creek Road or at a reasonable alternative location.

Areas for expansion of hiking and cross-country skiing opportunities in the Wickersham Dome Area will be evaluated and identified.

A minimum of 70 miles of trails and two cabins are proposed within this unit.

GOLD PANNING - NOME CREEK. A specific section of Nome Creek will be designated for gold panning. Markers delineating the extent of the panning area will be established on the ground. Parking areas will be established on the tailings level as demand warrants. Approved tools will be limited to the following: rocker boxes, gold pans, and portable sluice boxes (maximum 16" x 5'), and other hand-held tools such as shovels and picks.

Camping is limited to 10 days.

It may become necessary through a permit system to limit the number of users at a given time.

Rationale

The Semi-Primitive Motorized Management Unit is the most easily accessible portion of the WMNRA and is an appropriate place to provide recreational opportunities for users who desire motorized access. Such use compliments the primitive uses of WMNRA as well as the wilderness type uses in adjacent parks and refuges.

FISHERIES HABITAT MANAGEMENT

Management Direction

Restoration of fish habitat and riparian areas along Nome Creek (with the exception of the area to be designated for gold panning) will be attempted. Mitigation measures will be formulated to cope with the impacts of the development of existing mining claims. A plan and methodology for the restoration and rehabilitation of the stream and associated riparian areas will be developed.

The scope and extent of restoration and rehabilitation along Nome Creek will depend on pre-project planning results. However, a restoration project could involve stream channel modification and alteration, bank stabilization, gabion and wing-dam placement, riparian area recontouring, soil spreading, and willow planting.

Rationale

Nome Creek is a main headwater tributary to Beaver Creek and is accessible by road. Restoration of this fishery would provide high quality recreational opportunities to the day users from Fairbanks.

MINERALS MANAGEMENT

Management Direction

LOCATABLE MINERALS - NEW DISPOSALS. In accordance with Section 1312 of ANILCA, new disposals of locatable minerals within the WMNRA may only be accomplished through a leasing program.

Lode deposit leasing will be permitted within the Semi-Primitive Motorized Management Unit. Placer mining, except for those claims with prior rights, will not be permitted. See Proposed Plan map in map pocket.

OIL AND GAS. The area open to the leasing of lode deposits in the Semi-Primitive Unit will also be opened to oil and gas leasing under 43 CFR 3100. See Proposed Plan map in map pocket.

NON-ENERGY MINERALS. Other commodities disposal under the Mineral Leasing Act of 1920 are considered on a case by case basis (43 CFR 3500).

HARDROCK LEASABLES. New regulations are presently being prepared for hardrock leasing. Draft regulations have been circulated which would require that a prospecting permit/lease system with mandatory bonding be instituted. Analysis of the proposed operation would include but would not be limited to the following items: water quality, wildlife habitat, visual resources, compatibility with recreation values, undue and unnecessary degradation, and compliance with the hardrock leasing regulations.

Under both 43 CFR 3809 and the draft hardrock leasing regulations, special attention is given to all existing and proposed operations within the WMNRA to ensure that the water quality of Beaver Creek is preserved in its present state. All operations must employ the latest technology to mitigate downstream effects. Terms of National Pollutant Discharge Elimination System permits must be met or the operations will not be allowed to proceed.

Present EPA standards require no more than .7 ml/l settleable solids and a maximum increase of 25 Nephalometric Turbidity Units over natural conditions. These limits are the maximum discharges the BLM will permit, regardless of whether EPA changes its standards. Within five years of instituting this proposed plan, all existing operations within the WMNRA should have to have a "zero" effect on receiving waters. This means there would be zero ml/l settleable solids above background and the turbidity of the receiving stream will not exceed that of the waters immediately above the operation.

There will be close coordination with adjacent land owners or managers, such as U.S. Fish and Wildlife Service and the State of Alaska, where the potential exists to affect the lands under their control.

EXPLORATION. Because of the multiplicity of exploration methods which might be employed, anyone proposing to explore for minerals within the WMNRA should contact the Authorized Officer. In this unit, exploration activities which entail the use of mechanized equipment, explosives, etc., require an approved plan of operations or a prospecting permit prior to any activity.

Rationale

Lode mining or oil and gas development within the Semi-Primitive Motorized Management Unit is compatible with the recreational objectives for that unit and with the intent of ANILCA. Improved access associated with mineral development will benefit some recreational users. This area includes several geologic zones with mineral potential. The Surface Management Regulations (43 CFR 3809) and the proposed leasing regulations, coupled with the standards set by EPA, provide for sufficient controls on mining operations.

OFF-ROAD VEHICLES

Management Direction

The use of vehicles of less than 1,500 pounds GVW will be unrestricted in any season, except on designated hiking trails and cross-country ski trails, which would be closed to all vehicles. This policy will be reviewed after five years. The review will take into consideration the results of ORV monitoring. The use of vehicles of more than 1,500 pounds GVW off of a valid right-of-way will require authorization.

Rationale

With the current information on ORV impacts and the documented need for areas open for ORV use, it appears that this area is appropriate for the recreational use of light ORVs. It is relatively accessible from the Steese and Elliott highways and contains many existing ORV trails. ORV monitoring and use of emergency closures when necessary will provide sufficient protection for other values.

RIGHTS-OF-WAY AND OTHER REALTY ACTIONS

Management Direction

Under the authority of Section 503 of P.L. 94-579 (FLPMA), two transportation corridors will be established. Both will begin at the WMNRA boundary near the Steese Highway. One will cross upper Nome Creek and extend to Champion Creek. The other will extend to lower Nome Creek. Engineering studies for route selections within the transportation corridors will be conducted prior to any construction in order to identify potential road and trail locations, river crossings, and geologic hazards.

Rationale

Both corridors follow existing roads or trails. The upper Nome Creek corridor will provide recreational access to the ridge complex leading to the Mount Prindle area. The lower Nome Creek corridor will provide access to a put-in point on Nome Creek, which could be used to reach Beaver Creek NWR. Both corridors could also be used to provide access to existing and possible future mineral development.

VISUAL RESOURCE MANAGEMENT

Management Direction

Scenic quality will be maintained by adhering to Visual Resource Management objectives as defined by BLM Manual 8400.

The White Mountain Trail will be managed as a VRM Class II area. The objective of this class is to retain the existing character of the

landscape. The level of change to the landscape should be low. Management activities may be seen but should not attract the attention of the casual observer.

Areas of this unit that are determined to be within the critical viewshed for the NWR will be managed by VRM Class II objectives. These areas will be defined on 1:63,360 scale topographic maps within one year of completion of this plan.

The rest of the Semi-Primitive Management Unit will be managed as a VRM Class III area. The objective of this class is to partially retain the character of the landscape. The level of change should be moderate. Management activities may attract attention but should not dominate the view of the casual observer.

Rationale

Visual resources contribute to public enjoyment of the area and must be protected in a manner appropriate to recreational use. In this area, some changes to the landscape can be allowed to accommodate access, recreational facilities, or other developments.

Prescriptions for Research Natural Areas

Management Direction

Serpentine Slide (4,274 acres), Limestone Jags (5,170 acres), and Mount Prindle (3,147 acres in the WMNRA) will be designated as Research Natural Areas. Locations and boundaries are shown on the map in Appendix B. No surface-disturbing activities will be allowed within the RNAs except permitted research projects. The areas will be closed to off-road vehicles and camping to avoid disturbing research projects. Natural processes, including wildfire, will be allowed to continue with as little interference as possible. Primitive campsites could be established outside the RNA boundaries and improved access in the form of trails could be developed. Hiking, hunting, and nature appreciation will be allowed.

All Research Natural Areas will remain closed to all types of mineral leasing.

An Establishment Report, which describes the values within an RNA and outlines visitor management controls, will be written for each RNA. This work is already under way.

Rationale

The designation of Research Natural Areas is part of the Ecological Reserve System program, an interagency effort to identify examples of certain types of ecosystems. These areas were chosen because they

contain typical representatives of ecosystems or unusual natural features that are of scientific interest.

Description of Fire Management

Fire will be managed according to the standards established in the Alaska Interagency Fire Management Plan: Upper Yukon - Tanana Planning Area. Fire management will enhance primitive and semi-primitive recreational values by maintaining vegetative and visual diversity and increasing wildlife habitat quality. Fire management options are described in Appendix A. The areas in which particular options would be applied are shown on Map 1-1. In addition to the options shown on Map 1-1, any inhabited cabins will be designated as Critical Protection Sites and will receive first priority for fire suppression. Other cabins, structures, and historic cabins have been designated to receive protection.

Fuels management and other strategies will be used to reduce the wildfire hazard to structures which require protection.

The level of fire suppression will be that necessary to protect life, property, and historical cabins and to prevent escape of fire to areas requiring a higher level of fire suppression. There are no areas within the WMNRA where fire suppression is required to protect natural resource values. If increasing amounts of recreational or other uses mandate an increased level of fire protection, the level of suppression for any area can be changed. The Fire Management Plan is subject to annual review and modification.

Prescribed burning will be used to break up large areas of continuous fuels, improve wildlife habitat, and increase vegetative diversity. The drainages of Bear, Champion, Trail, and Ophir creeks will be considered, as well as other areas which may be identified as more information becomes available.

Prior to any prescribed burn, the area will be thoroughly investigated to identify any inhabited or historic cabins, other structures, or critical protection sites, and appropriate measures would be taken to protect them from fire.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN AND OTHER PLAN ELEMENTS

The purpose of this section of the plan is to address Areas of Critical Environmental Concern and/or coal leasing, two planning elements which are given special prominence in Bureau planning regulations and policy statements.

ACEC designations are designed to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards. No such designations are deemed necessary in the WMNRA at this time. No natural hazards, beyond the usual hazards associated with traveling in remote areas, were identified. Scenic values, fish and wildlife resources, and other important resource values were identified, but they can be adequately protected by the management prescriptions in this proposed plan and by standard BLM procedures. The additional layer of regulations provided by designation of an ACEC is not necessary to prevent irreparable damage to these resources.

Coal leasing is not permitted within National Recreation Areas (43 CFR 3201.1-6) and therefore does not need to be addressed here.

SUPPORT

Support activities are actions which make possible the implementation of the plan or which facilitate the type of resource management proposed in the plan. Such actions may be entirely within the authority of BLM, or they may involve other agencies, groups, or state and local governments.

Realty Actions

The BLM realty program will be needed to provide support for a number of other activities.

In order to open lands to mineral leasing, a Public Land Order will have to be written to revoke the existing withdrawals.

Lands in the Wickersham Dome area outside of the WMNRA boundaries which are necessary to ensure access to the WMNRA are presently withdrawn from State selection under PLO 5150, which establishes a corridor for the Trans-Alaska Pipeline System. Should PLO 5150 be revoked, another PLO will be necessary to ensure that the Wickersham Dome area will be retained in federal ownership and reserved for recreational purposes.

The Bureau will have to process applications for rights-of-way for pipelines, roads, or trails which may be proposed for access to mineral claims or leases, for public recreation, or for other purposes. In the case of applications from individuals, costs of processing may be recovered from the applicant. Applications from the State of Alaska for public roads would generally be processed at the expense of the federal government.

The Bureau will also have to file right-of-way applications for trails, cabins, or other facilities constructed at the expense of the Bureau. This is to ensure that BLM facilities will be protected from adverse land actions.

In order to clarify the question of public access, the State of Alaska should be asked to provide identification of all roads and trails for which it claims rights-of-way under the terms of Revised Statute 2477. The status of many miles of trail is presently uncertain, making it difficult to determine who has the authority to regulate use, and who has the responsibility for maintenance and public safety, etc. A resolution of this problem would make implementation of this proposed plan far easier, particularly with regard to restrictions on off-road vehicle use and with regard to all activities which require motorized access. A memorandum of understanding between the State of Alaska and the BLM should be executed to address this problem.

Intergovernmental Cooperation

Sharing of information with other resource management agencies and cooperative efforts in inventory, monitoring, research, studies, and enforcement are essential to the successful implementation of this plan. Some of the principal agencies with which the Bureau cooperates are as follows:

Agency	Focus of Cooperation
Alaska Department of Fish and Game U.S. Fish and Wildlife Service Endangered Species Officer	Inventory, monitoring, studies, and management of threatened or endangered and other species and their habitats; monitoring and evaluation of impacts of land uses on wildlife; and monitoring of human use of wildlife resources
Alaska Department of Environmental Conservation Environmental Protection Agency	Monitoring water quality, enforcement of water quality standards
Alaska Department of Natural Resources Divisions of Mining and of Geologic and Geophysical Surveys U.S. Bureau of Mines U.S. Geological Survey	Assessment of mineral potential
Alaska Dept. of Natural Resources Division of Parks U.S. Fish and Wildlife Service	Coordination of management with adjacent lands manager

CONSISTENCY DETERMINATION

The WMNRA is not included in lands covered by an existing federal, State, or local land use plan. However, land use planning is occurring on adjacent lands, and an effort has been made to coordinate this plan with the plans of adjacent land managers.

The WMNRA is bordered on the north by the Yukon Flats National Wildlife Refuge, administered by the U.S. Fish and Wildlife Service. A land use plan for the refuge is currently being developed. In the absence of a completed and approved plan, consistency with USFWS programs and policies has been addressed by responding to the comments submitted by USFWS on the Draft RMP/EIS. These comments and responses are printed in Chapter V of the Environmental Impact Statement, "Response to Public Comments."

The WMNRA is bordered on the west and south by lands belonging to the State of Alaska. Most of these lands are included in the Tanana Basin Area Plan, which is currently in draft form. The management actions proposed for the WMNRA are believed to be consistent with the proposals for managing State lands set forth in the Draft Tanana Basin Area Plan.

Consistency with the State programs and policies has been addressed by responding to the comments submitted by the State of Alaska on the Draft RMP/EIS. These comments and responses are also printed in Chapter V of the EIS. Additionally, in accordance with 43 CFR 1610.3-2(e), a copy of this Proposed Plan has been submitted to the Governor of Alaska for a consistency review.

The WMNRA is bordered on the east by the northern portion of the Steese National Conservation Area which is also under BLM administration. Land use planning for the WMNRA and the SNCA has been conducted simultaneously by the same planning team to ensure maximum coordination between the two plans.

IMPLEMENTATION

This section describes the actions which will be required to implement the management proposals described in this plan. This includes the development, operation and maintenance of new facilities; increased visitor services, monitoring and evaluation of use; and the increased manpower needs associated with these proposals. Implementation is not a single, discrete action. Rather, it is an ongoing process, which will continue until this plan is replaced by a new or revised plan.

Activity Planning

The management proposals recommended by this plan represent broad scale land use decisions. In many instances, such as in the development of new facilities, more detailed, site specific planning is required. This level of planning is necessary to determine exact location of improvements, to explore alternative methods of design and construction, and to provide specific guidance for operations and maintenance, etc. For the purposes of this section, these additional planning requirements have been identified as additional planning needs. If further needs are identified later, additional project plans can be developed without amending this RMP, as long as the proposals of the plans are in conformance with the RMP.

Figures on costs are broken down by program. These costs reflect participation and expenditures by the BLM Alaska State Office, Fairbanks District Office, and Yukon Resource Area.

PROJECT PLANNING NEEDS

Program	Planning Needs & Objectives:	Completion Time	Cost
Recreation	1. Consistent with the recreation management objectives established through this plan, develop a Recreation Activity Management Plan (RAMP) to provide specific, detailed locations, timing, methods, and rationale for: a) public information and interpretation, b) remote public use cabin program, (c) campgrounds, trailheads, boat launches, or other facilities, and d) summer and winter trails, especially hiking trails associated with Beaver Creek.	1 year	$30,000
	2. Project Plans for lay-out and design of all recreation facilities. (Priorities for these planning needs are discussed later in this section under construction and maintenance priorities.)	3 years	$75,000
	Total Project Requirement	4 years	$120,000
Visual Resource Management	Viewshed analysis of Beaver Creek to refine the critical viewshed and to place allowable activities in perspective.	1 year	$12,000
Wildlife	1. Habitat Management Plan to carry out cooperative monitoring, protection, and improvement projects and maintenance of habitat programs described in management prescriptions.	1 year	$ 6,000
	2. Yearly implementation of Habitat Management Plan year for the life of the plan	Ongoing	$105,400
Fisheries	Project plan for restoration and rehabilitation of fish habitat in Nome Creek.	1 year	$10,000
Fire	Project plans to describe exact procedures for prescribed burns.	2 years	$45,000

Construction and Maintenance

The following construction work would be necessary to fully implement plan decisions:

RECREATION

Recreation facilities:	Construction	Maintenance:
15 miles of access road to lower Nome Creek or for extension of U.S. Creek Road to Champion Creek to improve river access and provide necessary facilities	$1.5 million	$30,000/year
166 miles of Trails	$525,000	$10,000/year
9 Cabins	$ 80,000	$10,000/year
1 Campground	$500,000	$10,000/year
10 Trailheads	$300,000	$ 5,000/year
Airstrip-minor improvements	$ 25,000	$ 3,000/year

Recreation facilities will be constructed as funding permits. Priorities are as follows:

First Priorities

Lower Nome Creek - river access, small campground
Cache Mountain/Mount Prindle Trail - 50 miles of trail
Table Top Mountain Spur Trail - 21 miles of trail
Air strip near Victoria Creek

Second Priorities

Shelters along Cache Mountain/Mount Prindle Trail-(4)
Trail development: Big Bend - 18 miles of trail
Lime Peak Trail - 19 miles of trail

Third Priorities

Shelter at Big Bend Trail-(1)
Shelter at Lime Peak Trail-(1)
Trail development: Victoria Mountain Trail - 22 miles of trail
Snowmachine Access Trail: Wickersham Dome - 32 miles of trail

Fourth Priorities

Shelter at Victoria Mountain Trail-(1)
Shelter at Wickersham Dome snowmachine trail-(1)

RESTORATION OF FISH HABITAT IN NOME CREEK

The scope and extent of restoration and rehabilitation along Nome Creek will depend on pre-project planning results. However, a restoration project could involve stream channel modification and alteration, bank stabilization, gabion and wing-dam placement, riparian area recontouring, soil spreading, and willow planting. A stream reach of 5 to 10 miles could be involved. Total cost will depend on the scope of the project but could be as high as $200,000 over a three year project period.

Manpower (Resource Protection and Visitor Services)

Many plan decisions can be implemented with existing staff as part of ongoing resource management programs in the Yukon Resource Area. Actions which would require an increase in staff are described below:

RECREATION

Additional manpower will be needed to (1) prepare necessary project plans and (2) provide maintenance and visitor services (public information visitor safety, monitoring ORV use, etc.). This would require the services of a recreation specialist (seasonal), and two recreation technicians (seasonal), at an approximate annual cost of $54,000. An additional $10,000 for aircraft use would be required.

This manpower will provide for immediate needs. After construction of new facilities, additional manpower may be needed for maintenance and to handle increased visitor use. Specific additional needs will be identified during project planning.

MINERALS

To ensure compliance with existing and anticipated mining plans of operation or mineral lease requirements, at least three inspections per year should be made of all operations. This will require a full-time surface protection specialist at a cost of approximately $40,000 per year, and approximately $9,600 per year for aircraft use.

WILDLIFE

Additional manpower will be necessary to implement fish and wildlife project work. One seasonal wildlife biologist and two seasonal fishery biologists for 5 months each for approximately $52,500.

Monitoring and Evaluation of the RMP

Monitoring and evaluation provide information about progress towards the goals and objectives established in the plan. Information gained is used to determine the effectiveness of plan decisions and related management prescriptions. Monitoring indicates when amendments or revisions may be necessary.

BLM planning procedures require monitoring and evaluation at least every five years. Because of the national interest in this plan, the high value of existing resources and the scarcity of information about some of those resources, this plan should be evaluated at least every three years or whenever a significant change in the management situation occurs.

Every three years, the Yukon Area Manager will be required to evaluate the plan on the basis of the best and most recent information available. He/she will:

1. determine if a multiple use prescription is fulfilling the purpose for which it was designed or if there is a need for amendment or termination of the prescription.

2. determine if predictions of effects and impacts from management actions were accurate as a basis for appropriate management action and as a basis for more accurate predictions in future planning.

3. reveal unanticipated and/or unpredicted effects including off-site impacts.

4. determine if mitigative measures are satisfactory and are as effective as predicted.

5. determine if any established threshold levels have been met or exceeded.

6. provide for continuing evaluation of consistency with plans or programs of the State of Alaska and adjacent land managers.

7. provide for continuing comparison of plan benefits versus costs (social, economic, and environmental).

8. determine if new data or information have affected the plan, its conclusions, or estimation of effects.

9. determine the rate and degree to which the plan is being implemented in terms of both the decisions that can be implemented without activity planning and those that require activity planning.

This evaluation would become part of the RMP file in the Yukon Resource Area office and would be available for public inspection.

In order to effectively perform monitoring and evaluation, more resource data are needed in a number of areas. Resource inventories necessary for effective monitoring are described below. Other inventory needs may become apparent after implementation of the plan.

RECREATION

(1) A visitor-use survey would be undertaken to quantify number of users, types of use, impacts of use, user needs, and user conflicts. This program would be instituted within two years and would continue for the life of the plan. Such information is essential to maintaining a recreation management program which is responsive to public demand. (2) Existing ORV trails would be mapped and ORV use would be monitored. This information is needed to determine whether or not resource damage or user conflicts are occurring as a result of ORV use. The program should be instituted within one year.

MINERALS

Mineral assessment of all federal lands within the WMNRA is needed to expand the data base with respect to the mineral potential of the Area. The mineral assessment program may include, but would not be limited to, such techniques as side-looking radar imagery, airborne magnetometer surveys, and helicopter-borne core and test drilling. A mineral program consisting of gathering and analyzing rock and chip samples, stream sediment samples, and pan concentrates could be accomplished during a five-year period. The cost of such an effort would be approximately $915,000 ($183,000 per year).

The mineral resource assessment program discussed here is in keeping with the intent of Congress as identified by Section 1010 of ANILCA. All proposals for this assessment, whether conducted by public or private groups, would be accomplished in an environmentally sound manner that would prevent any lasting impacts which would appreciably alter the natural character of the WMNRA of the biological or ecological systems found in it. Protective restrictions on access and operations during calving, spawning, migration, or other critical periods shall be imposed.

WILDLIFE

Ongoing inventories would be continued, emphasizing identification of crucial use areas, assessment of habitat condition and trends, and assessment of effects of land use activities. Aerial surveys, ground surveys, and biotelemetry would be used.

FISHERIES

A fishery inventory of Nome Creek would be conducted to assess the opportunities for habitat improvement and assist in project planning for the rehabilitation of Nome Creek. The approximate cost would be $10,000. Inventories would be conducted on Bear Creek and Champion Creek

to determine present habitat quality and fish use. This information would be used to evaluate the impacts of development of existing mining claims on those creeks and to formulate appropriate mitigating measures. Approximate cost would be $12,000.

SUBSISTENCE

BLM's data base on subsistence uses on and near federal lands will continue to increase as more studies of subsistence activities are completed for central Alaska by Alaska Department of Fish and Game/ Division of Subsistence, and by other organizations and individuals. This information will further aid in developing mitigation for future site specific land use proposals made to BLM.

PART THREE

White Mountains National Recreation Area

APPENDICES

A Fire Management Options

CRITICAL PROTECTION SITES (AREAS)

Policy

This designation is for those areas where fire presents a real and immediate threat to human safety and designated physical developments. Fires burning in these areas (sites) will be immediately and aggressively suppressed.

Objectives

- Protect human life and inhabited property.
- Place highest priority on the allocation of suppression forces to sites (areas) in this option.
- Limit damage from fire to the minimum achievable.

FULL PROTECTION AREAS

Policy

The fires burning in this area will be controlled through immediate and aggressive action.

Objectives

- Regardless of fire weather, or behavior, control all fires at the smallest acreage possible.
- Minimize the disruption by fire on designated, planned, or ongoing human activities in the area.

MODIFIED ACTION AREAS

Policy

Contain all fires using aggressive initial attack unless otherwise directed by the land manager/owner upon completion of a modified initial attack analysis.

Manage fires to consider resource management objectives in a cost-effective manner.

Objectives

- Reduce suppression costs on escaped fires through minimum force commitments and indirect suppression tactics.
- Provide opportunities for fire to help achieve land management objectives.

LIMITED ACTION AREAS

Policy

Contain fires only to the extent required to prevent undesirable escape from this area.

Objectives

- Reduce overall suppression costs.
- Allow fire to burn unimpeded to the fullest extent possible.
- Prevent fire activity in this area from violating fire management policies and objectives in adjoining areas.

B Research Natural Areas

Research Natural Areas (RNAs) are established under 43 CFR 8223. RNAs are established and maintained for scientific research and public education. They are chosen on the basis of natural characteristics which make them desirable for those purposes.

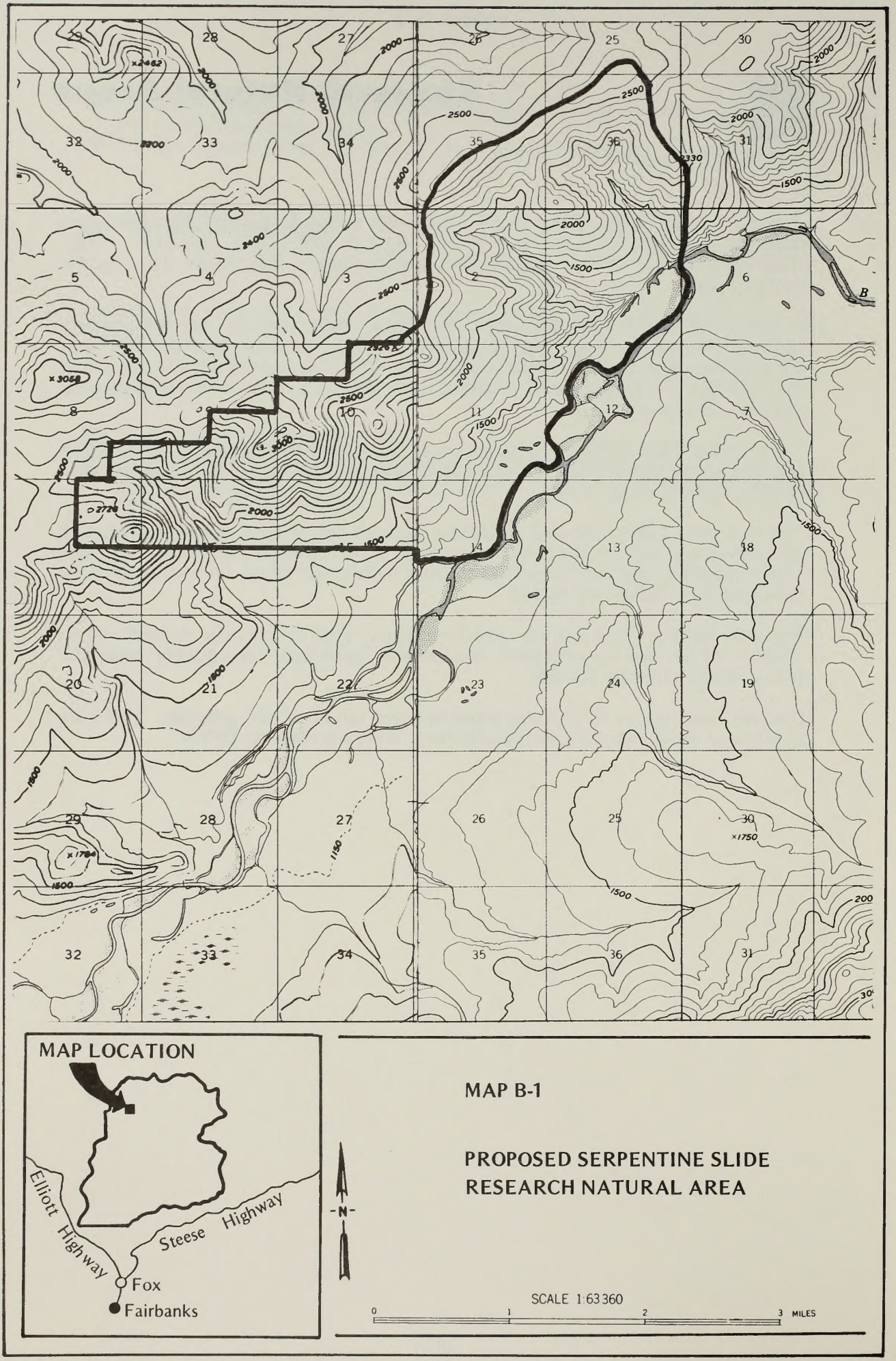
A survey of the Steese National Conservation Area and the White Mountains National Recreation Area was conducted in 1982, to determine if either unit contained areas suitable for RNA designation. Three such areas were found within the WMNRA. Locations and proposed boundaries of these areas are shown on Maps B-1, B-2, and B-3.

The proposed Mount Prindle RNA, which straddles the border between the WMNRA and the Steese National Conservation Area, was selected for special physiographic, wildlife, and botanical values.

The proposed Limestone Jags RNA was selected for geologic features (including limestone caves and a natural arch) as well as certain wildlife and botanical values. The proposed Serpentine Slide RNA contains a major earthslide, an unusual bedrock type, and other significant values.

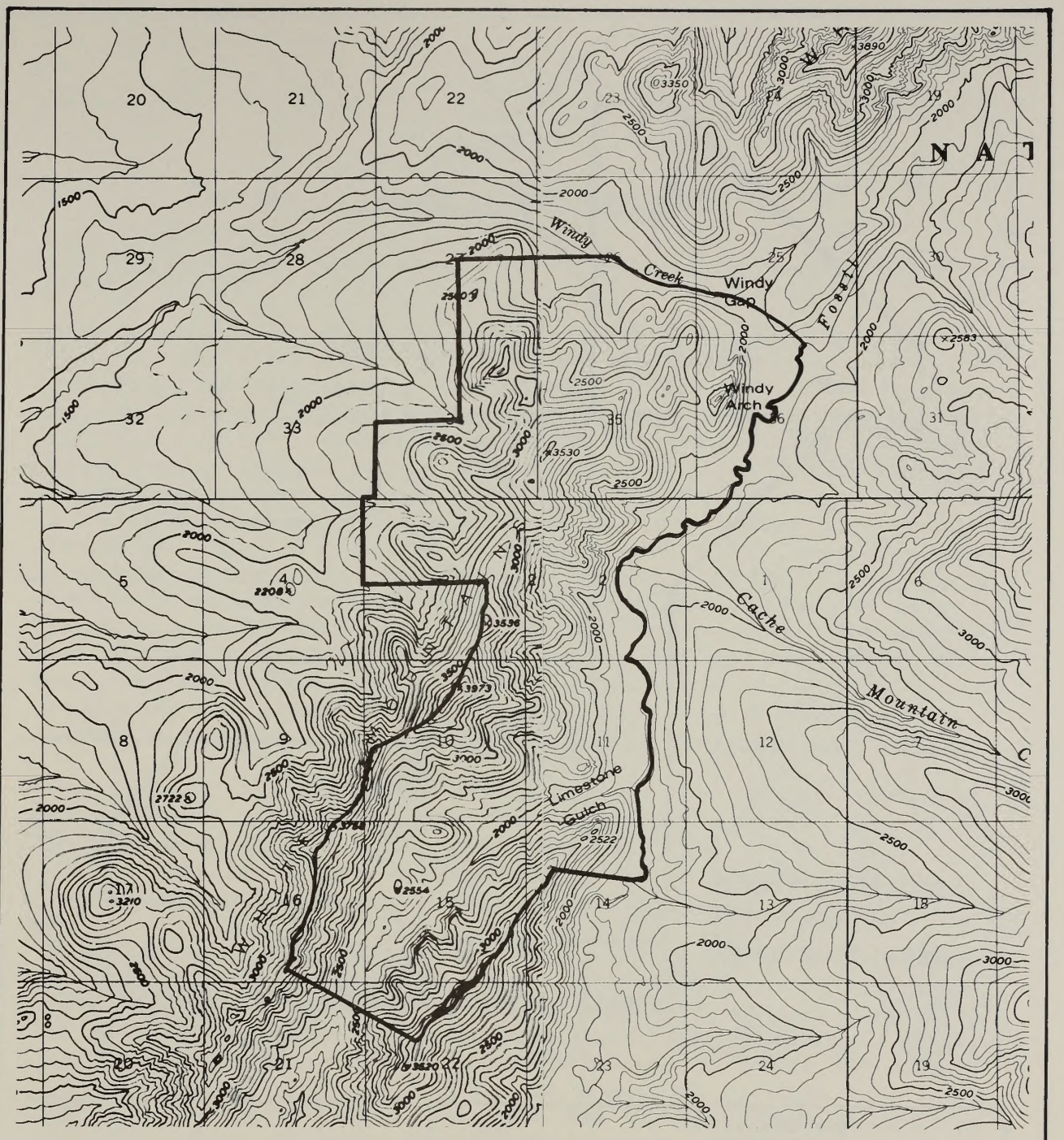
Research Natural Areas can be used for various types of scientific research. Such research could lead to improved management techniques for adjacent lands and similar lands in interior Alaska.

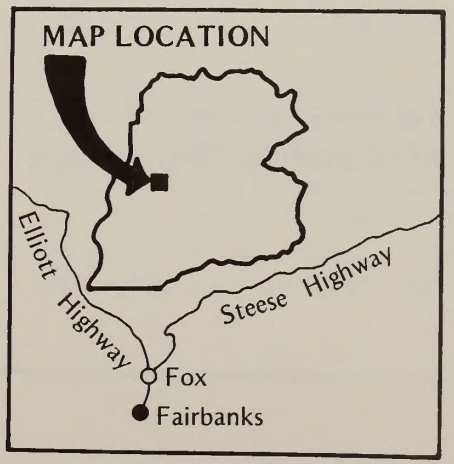
Detailed descriptions of the characteristics and values of the proposed RNAs are available at the Bureau of Land Management, Fairbanks District Office.



MAP B-1

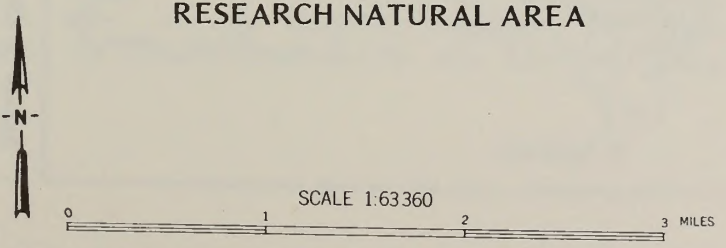
PROPOSED SERPENTINE SLIDE
RESEARCH NATURAL AREA

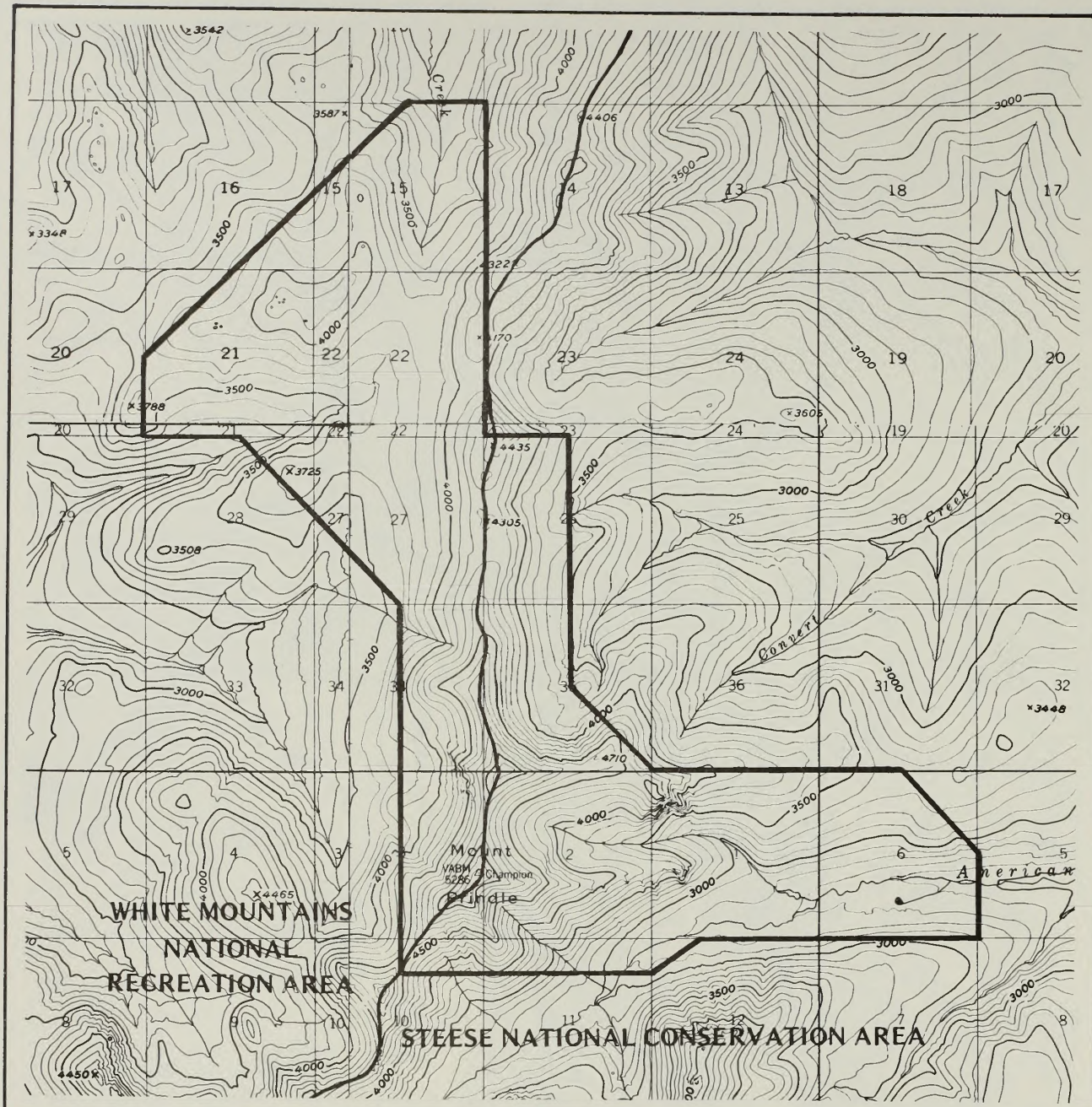


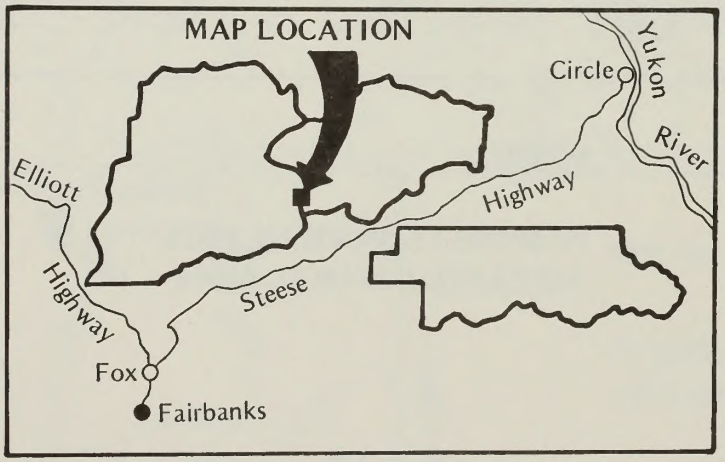


MAP B-2

PROPOSED LIMESTONE JAGS
RESEARCH NATURAL AREA







MAP B-3

PROPOSED MOUNT PRINDLE
RESEARCH NATURAL AREA

N

SCALE 1:63360

0 1 2 3 MILES

APPENDIX C

Mineral Leasing Related Activities

1. Seismic Surveys

Seismic surveys (which may be conducted whether the land is leased or not) are the first aspect of petroleum exploration that create the potential for environmental disturbance. The most common onshore geophysical survey technique used in the area involves setting off explosives in holes spaced one-eighth to one-quarter of a mile apart along straight survey lines. The holes are drilled from a truck or tracked vehicle to a depth of 75 to 120 feet. Seismic impulses produced by the explosives are picked up by a string of sensitive geophones which are spread on the ground. The geophones are connected to recording instruments. Spacing of survey lines in a typical frontier area (area with no previous exploration) is 3 to 6 miles in a grid pattern. It is also possible to use surface charges set in place by helicopter, thus dispensing with the need for a drill rig. Surface charges can be exploded on the ground or on poles a few feet above the ground. Explosive wire payed out and buried a few inches by a plow or tractor is another alternative method.

The vibrator or "Vibroseis" technique produces seismic energy by using several vehicles equipped with large steel plates. Each plate is held in contact with the ground by supporting the weight of its vehicle, and it is then vibrated. This system is not adaptable to mountainous terrain or swampy land.

A conventional winter seismic operation may involve 40 to 50 workers and an equipment spread of four D-7 size crawler tractors with extra wide snow tracks, two Terri-Tire or Rolligon-type vehicles, and three or four smaller tracked personnel carriers. Camp quarters, repair shops, and seismic recording units are mounted on sleds and seismic crews, depending upon location, can be resupplied by light fixed-wing aircraft and helicopters, and when the ice is thick enough, by Hercules C-130 aircraft landing on runways constructed on lake surfaces.

In a regional seismographic survey, a local village airstrip often is used as a staging area. Equipment can be flown in and then transported cross-country in a train or caravan. When operative, the camp is usually moved every day. In a survey requiring more detailed data in smaller areas, the camp may be moved only once or twice during the program. In the latter case, workers are ferried daily from camp to the work site.

On the tundra of the arctic plain, seismic operations always have been restricted to winter months when the ground is frozen and snow cover is sufficient to protect the vegetation. Summer seismic operations using low ground pressure vehicles have been successfully conducted with minimal disturbance to the tundra in the Bethel Basin, where the permafrost generally has much less gound ice than the North Slope. However, an area of discontinuous permafrost, such as the Steese and White Mountains block, tends to be even more sensitive and unpredictable with respect to certain disturbances than the continuous permafrost of the high arctic.

In forested areas, it is usually necessary to cut trails. However, forest cutting can be avoided altogether or minimized through the use of helicopters. For example, in the winter of 1979-80, an airborne geophysical survey was conducted in the Kenai National Moose Range. This survey technique, which has been employed only a few times in Alaska, used surface dynamite charges and portable recording equipment. The operation involved no clear cutting and used airborne support with three helicopters to move equipment and personnel. The survey required a 1/4-mile offset from lakes and streams. If concentrations of moose were encountered, the survey schedule or line sequence had to be changed. The charges were placed either on-the-ground surface or on poles 18 inches above the ground; charges had to avoid prime trees.

It must be emphasized that seismic exploration as described above may occur even if the area is not open to mineral leasing. The BLM must review and approve the geophysical permit and plan of operation before the survey takes place.

2. Exploratory Drilling

As with seismic exploration, before exploratory drilling can take place, the lessee must submit an exploratory plan for approval by BLM. An environmental assessment will be completed before the plan is approved.

Activities and construction associated with drilling exploratory and delineation wells vary according to well location, terrain conditions, soil characteristics (e.g., permafrost or non-permafrost), well depth, access to the site, and type of drill rig. Despite this variation, the following sequence of activities is typically involved:

(1) Fly in construction equipment to nearest public airstrip.

(2) Transport of construction equipment cross-country to area of operation.

(3) Build access roads to gravel and water sources.

(4) Build temporary ice runway or permanent airstrip (5,000 ft.).

(5) Fly in or bring overland construction camp and additional construction equipment.

(6) Build access road to drill pad.

(7) Build drill pad.

(8) Mobilize and transport drill rig (in sections), casing, cement, etc., by road or air, or combination of air and overland transport.

(9) Rig up (assemble drill rig and prepare for drilling; assemble workers and supplies).

(10) Drill, core, and test (if required).

(11) Clean-up drill site, fill in reserve pit, rehabilitate as necessary.

The sequence of activities for a shallow- or medium-depth well of about 10,000 feet can be completed in one winter season. For a deeper well, requiring more than one winter season to drill, two operational plans have been employed in the National Petroleum Reserve, Alaska (NPRA). The first one involves site preparation and partial rig-up during the first winter, followed by closure of the well-site at the end of April. In November, the camp is reopened, and ice airstrips and ice roads are rebuilt. Drilling occurs from December through April. The second operational plan involves construction of an all-season gravel airstrip, roads, and pad during the first winter, followed by transport of the rig to the site in May and drilling through the summer and following winter.

If the drilling operation is to extend into the summer months, permanent roads, airstrip, drill pad, and campsite must be built upon a substantial overlay of gravel. This is true in both permafrost and non-permafrost regions, although load-bearing requirements are the main concern in non-permafrost areas.

In permafrost areas, where thawing of the ice-rich soil must be prevented to avoid erosion problems, a typical well pad is about 5 feet thick and requires about 45,000 cubic yards of borrow material. In non-permafrost areas, it is not necessary to maintain the thermal regime under the drill pad. Nonetheless, up to 4 feet of gravel may be necessary to provide sufficient bearing capacity for the drill rig. Part of the material for the pad may come from excavation of the reserve pit. In permafrost areas, a pad 5 feet thick (as with roads and airstrips) is generally sufficient to assure year-round stability. Another construction method that has been successful in permafrost areas is the "thin-pad" method, in which several feet of

gravel are replaced by a layer of rigid insulation. Regardless of the technique used, pad preparation should involve preservation of the original tundra cover.

The reserve pit (or sump) is the place of disposal for drilling fluids, mud, and cuttings; and it provides a containment for fluids if problems develop during drilling. Care in the location, construction, and restoration of the sump is important for containment of drilling fluid. Sump size is related to the planned depth of the well. (A 10,000-foot well, for example, requires approximately 140,000 cubic feet of drilling fluid.) Sump construction typically involves digging a pit about 5 feet deep, which, combined with a pad thickness of 5 feet, provides a depth of 10 feet for the sump.

In a remote area where two drilling crews will be housed on site, camp facilities must accommodate 30 to 40 workers. Some local employment from nearby communities is possible, but since many jobs on a drill rig are highly specialized, complete drilling crews are often assembled by the operator from available oil field professionals.

3. Development Scenarios

Development schemes vary widely, as each new field is discovered. Specific development requirements are dictated by factors such as reservoir size, configuration, depth, pressure, porosity, permeability, quality of hydrocarbons, eventual transportation modes, product utilization, and resource ownership. Because of the lack of geological and geophysical information about this area, any foreseeable development scenario is highly speculative. Therefore, a description of a probable field development scenario with surface facilities is presented here in order to indicate the general magnitude of impacts. As with seismic exploration and drilling, any development requires a development plan and further analysis of environmental impacts.

U.S. Geological Survey studies of onshore oil and gas provinces in Alaska give the Steese and White Mountains block only a slight chance of containing commercial quantities of gas, with an even lesser chance of containing significant quantities of oil. The lower investment and development requirements of gas, coupled with local marketing possibilities, make gas a much better (though still unlikely) prospect for development than oil. Therefore, the following discussion will describe development activities around a small- to medium-sized gas field. This hypothesis assumes that the total estimated recoverable hydrocarbon resources of a large province would occur in one field in a marginal part of the province.

For the purposes of this discussion, a hypothetical field containing 500 million thousand cubic feet of gas is located in the northern

part of the area. The approximate acreage within the field is 20,000 acres. Three well pads, each containing three to four individual wells along with their own treating facilities, would be spaced throughout the field. Spur roads would connect the well pads to a primary road leading to the airstrip and central processing facilities. Table 1 summarizes the regional surface disturbance estimated for production from this hypothetical field.

ACRES OF SURFACE DISTURBANCE CAUSED BY DEVELOPMENT OF HYPOTHETICAL GAS FIELD

Table 1

Facility	Quantity	Disturbed Acres
Well pads	3 (15 acres each)	45
Spur roads	3 (15 miles total)	72
Primary roads	1 (6 miles)	36
Gathering lines	3 (10 miles total)	50
Main pipeline	1 (10 miles)	50
Central processing facility	1	50
Airstrip	1	30
Material sources	2	100
	Total	433

Pipeline construction is necessary to transport gas to local markets, such as nearby communities or to Fairbanks. For a pipeline up to 6 inches in diameter, a construction crew of up to 300 men may be used. Working at a rate of 2 to 3 miles a day, the crew would be housed in temporary quarters for several months.

To facilitate laying pipe in marshy areas, construction of a pipeline should take place in winter, to take advantage of frozen conditions. a right-of-way of 30 to 50 feet would be cleared of vegetation, and pipe would be buried in a ditch which would allow a minimum of 36 inches of cover. Gathering lines between well-sites and a central processing facility could easily be routed along spur roads.

Surface disturbance from pipeline rights-of-way would approximate 5 acres per mile of pipeline. Pipelines can be routed so as to avoid areas of socio-economic or archaeological importance. Proper revegetation techniques can be employed in order to reestablish ground cover.

Production personnel may be based out of local communities or Fairbanks. If not, essential personnel will reside on-site permanently, or be rotated in shifts lasting up to 20 days. Local employment is possible, due to the long-term need for personnel in a producing field, and, therefore, the possibility for job training.

APPENDIX D

Stipulations for the Mitigation of Impacts to Fisheries

1. Stream crossings (low-water crossings) at designated areas only and constructed and maintained in a manner to minimize erosion and to permit the passage of fish.

2. No instream use of vehicles except at designated crossings.

3. Fuel storage and refueling operations will take place 100 feet from any stream or lake and storage areas shall be diked and lined with impermeable material.

4. Buffer strips at least 100 feet around streams or lakes where physical alterations are planned (except on mining claims).

5. In cases where upland gravel sources are not available or would cause more damage, riparian sources will be utilized and extracted in a manner to minimize loss of fish and wildlife and their habitats. Specific steps on case by case.

6. Culverts placed in fish streams shall be placed so as to allow for the passage of fish.

7. All placer mines and other surface disturbances will be rehabilitated to minimize additional future erosion.

8. No industrial use of water shall be permitted between December 1 and April 15.

9. Screens of no larger than 1/2 inch mesh shall be placed on the intake hoses of all water pumps when pumping water from streams or lakes.

10. Special stipulations may be placed on development activities in crucial habitat areas (fish spawning and overwintering areas). Such stipulations could involve altering the timing of activities so as to avoid disturbing or disrupting spawning activity or cause the selection of alternate sites.

11. Best available technology to reduce siltation and stream turbidity will be required on all surface disturbing activities.

12. No wastewater or sewage discharge into water bodies.

Recommended Protection Measures for Peregrine Falcons During The Nesting Period

The following protection measures are intended as general guidelines and may not be appropriate in all situations. The level of protection needed may vary with topography, vegetation and the sensitivity of individual birds to human activity. When feasible, proposed activities should be examined on a case by case basis by a biologist knowledgeable of the habits and behavior of peregrine falcons.

A. Within 1 mile of nest sites:
   1. Require aircraft to maintain minimum altitudes of 1,500 feet above nest level from April 15 through August 31.
   2. Prohibit all ground level activity from April 15 through August 31 except on existing thoroughfares.
   3. Prohibit habitat alterations or the construction of permanent facilities.

B. Within 2 miles of nest sites:
   1. Prohibit activities having high noise levels from April 15 through August 31.
   2. Prohibit permanent facilities having high noise levels, sustained human activity, or altering limited, high quality habitat (e.g., ponds, lakes, wetlands and riparian habitats).

C. Within 15 miles of nest sites:
   1. Prohibit alteration of limited, high quality habitat which could detrimentally and significantly reduce prey availability. Of particular concern are ponds, lakes, wetlands and riparian habitats.
   2. Prohibit use of pesticides—The only exception may be limited non-aerial application of approved non-persistent insecticides at supply bases.

Subpart 3809—Surface Management

AUTHORITY: Secs. 2319 (30 U.S.C. 22) and 2478 (43 U.S.C. 1201) of the Revised Statutes and the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.), unless otherwise noted.

SOURCE: 45 FR 78909, Nov. 26, 1980, unless otherwise noted.

NOTE: The information collection requirements contained in subpart have been approved by the Office of Management and Budget under 44 U.S.C. 3507 and assigned clearance number 1004-0104. This information is needed to permit the authorized officer to determine if a plan of operation is needed to protect the public lands and their resources and to determine if the plan of operations, if one is required, is adequate. The obligation to respond is required to obtain a benefit.

[48 FR 8816, Mar. 2, 1983]

GENERAL

§ 3809.0-1 Purpose.

The purpose of this subpart is to establish procedures to prevent unnecessary or undue degradation of Federal lands which may result from operations authorized by the mining laws.

§ 3809.0-2 Objectives.

The objectives of this regulation are to:

(a) Provide for mineral entry, exploration, location, operations, and purchase pursuant to the mining laws in a manner that will not unduly hinder such activities but will assure that these activities are conducted in a manner that will prevent unnecessary or undue degradation and provide protection of nonmineral resources of the Federal lands;

(b) Provide for reclamation of disturbed areas; and

(c) Coordinate, to the greatest extent possible, with appropriate State agencies, procedures for prevention of unnecessary or undue degradation with respect to mineral operations.

§ 3809.0-3 Authority.

(a) Section 2319 of the Revised Statutes (30 U.S.C. 22 *et seq.*) provides that exploration, location and purchase of valuable mineral deposits, under the mining laws, on Federal lands shall be "under regulations prescribed by law," and section 2478 of the Revised Statutes, as amended (43 U.S.C. 1201), provides that those regulations shall be issued by the Secretary.

(b) Sections 302, 303, 601, and 603 of the Federal and Policy and Management Act of 1976 (43 U.S.C. 1701 *et seq.*) require the Secretary to take any action, by regulation or otherwise, to prevent unnecessary or undue degradation of the Federal lands, provide for enforcement of those regulations, and direct the Secretary to manage the California Desert Conservation Area under reasonable regulations which will protect the scenic, scientific, and environmental values against undue impairment, and to assure

against pollution of streams and waters.

(c) The Act of July 23, 1955 (30 U.S.C. 612), provides that rights under mining claims located after July 23, 1955, shall prior to issuance of patent therefor, be subject to the right of the United States to manage and dispose of the vegetative surface resources and to manage other surface resources. The Act also provides that "Any mining claim hereafter located under the mining laws of the United States shall not be used, prior to issuance to patent therefor, for any purposes other than prospecting, mining or processing operations and uses reasonably incident thereto."

(d) Section 9 of the Wild and Scenic Rivers Act (16 U.S.C. 1280) provides that regulations issued shall, among other things, provide safeguards against pollution of the rivers involved and unnecessary impairment of the scenery within the area designated for potential addition to, or an actual component of the national wild and scenic rivers system.

§ 3809.0-5 Definitions.

As used in this subpart, the term:

(a) "Authorized officer" means any employee of the Bureau of Land Management to whom authority has been delegated to perform the duties described in this subpart.

(b) "Casual Use" means activities ordinarily resulting in only negligible disturbance of the Federal lands and resources. For example, activities are generally considered "casual use" if they do not involve the use of mechanized earth moving equipment or explosives or do not involve the use of motorized vehicles in areas designated as closed to off-road vehicles as defined in Subpart 8340 of this title.

(c) "Federal lands" means lands subject to the mining laws including, but not limited to, the certain "public lands" defined in section 103 of the Federal Land Policy and Management Act of 1976. Federal lands does not include lands in the National Park System, National Forest System, and the National Wildlife Refuge System, nor does it include acquired lands, Stockraising Homestead lands or lands where only the mineral interest is reserved to the United States or lands under Wilderness Review and administered by the Bureau of Land Management (these lands are subject to the 43 CFR Part 3802 regulations).

(d) "Mining claim" means any unpatented mining claim, millsite, or tunnel site located under the mining laws and those patented mining claims and millsites located in the California Desert Conservation Area which have been patented subsequent to the enactment of the Federal Land Policy and Management Act of October 21, 1976.

(e) "Mining laws" means the Lode Law of July 26, 1866, as amended (14 Stat. 251); the Placer Law of July 9, 1870, as amended (16 Stat. 217); and the Mining Law of May 10, 1872, as amended (17 Stat. 91); and all laws supplementing and amending those laws, including among others the Building Stone Act of August 4, 1892, as amended (27 Stat. 348); and the Saline Placer Act of January 31, 1901 (31 Stat. 745).

(f) "Operations" means all functions, work, facilities, and activities in connection with prospecting, discovery and assessment work, development, extraction, and processing of mineral deposits locatable under the mining laws and all other uses reasonably incident thereto, whether on a mining claim or not, including but not limited to the construction of roads, transmission lines, pipelines, and other means of access for support facilities across Federal lands subject to these regulations.

(g) "Operator" means a person conducting or proposing to conduct operations.

(h) "Person" means any citizen of the United States or person who has declared the intention to become such and includes any individual, partnership, corporation, association, or other legal entity.

(i) "Project area" means a single tract of land upon which an operator is, or will be, conducting operations. It may include one mining claim or a group of mining claims under one ownership on which operations are or will be conducted, as well as Federal lands on which an operator is exploring or prospecting prior to locating a mining claim.

(j) "Reclamation" means taking such reasonable measures as will prevent unnecessary or undue degradation of the Federal lands, including reshaping land disturbed by operations to an appropriate contour and, where necessary, revegetating disturbed areas so as to provide a diverse vegetative cover. Reclamation may not be required where the retention of a stable highwall or other mine workings is needed to preserve evidence of mineralization.

(k) "Unnecessary or undue degradation" means surface disturbance greater than what would normally result when an activity is being accomplished by a prudent operator in usual, customary, and proficient operations of similar character and taking into consideration the effects of operations on other resources and land uses, including those resources and uses outside the area of operations. Failure to initiate and complete reasonable mitigation measures, including reclamation of disturbed areas or creation of a nuisance may constitute unnecessary or undue degradation. Failure to comply with applicable environmental protection statutes and regulations thereunder will constitute unnecessary or undue degradation. Where specific statutory authority requires the attainment of a stated level of protection or reclamation, such as in the California Desert Conservation Area, Wild and Scenic Rivers, areas designated as part of the National Wilderness System administered by the Bureau of Land Management and other such areas, that level of protection shall be met.

(Sec. 2319 (30 U.S.C. 22) and sec. 2478 (43 U.S.C. 1201) of the R.S. and the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.))

[45 FR 78909, Nov. 26, 1980; 45 FR 82934, Dec. 17, 1980, as amended at 48 FR 8816, Mar. 2, 1983]

§ 3809.0-6 Policy.

Consistent with section 2 of the Mining and Mineral Policy Act of 1970 and section 102(a) (7), (8), and (12) of the Federal Land Policy and Management Act, it is the policy of the Department of the Interior to encourage the development of Federal mineral resources and reclamation of disturbed lands. Under the mining laws a person has a statutory right, consistent with Departmental regulations, to go upon the open (unappropriated and unreserved) Federal lands for the purpose of mineral prospecting, exploration, development, extraction and other uses reasonably incident thereto. This statutory right carries with it the responsibility to assure that operations include adequate and responsible measures to prevent unnecessary or undue degradation of the Federal lands and to provide for reasonable reclamation.

§ 3809.1 Operations.

§ 3809.1-1 Reclamation.

All operations, whether casual, under a notice, or by a plan of operations, shall be reclaimed as required in this title.

§ 3809.1-2 Casual use—negligible disturbance.

No notification to or approval by the authorized officer is required for casual use operations. However, casual use operations are subject to monitoring by the authorized officer to ensure that unnecessary or undue degradation of Federal lands will not occur.

§ 3809.1-3 Notice—disturbance of 5 acres or less.

(a) All operators on project areas whose operations, including access across Federal lands to the project area, cause a cumulative surface disturbance of 5 acres or less during any calendar year shall notify the authorized officer in the District office of the Bureau of Land Management having jurisdiction over the land in which the claim(s) or project area is located. Prior to conducting additional operations under a subsequent notice covering substantially the same ground, the operator shall have completed reclamation of operations which were conducted under any previous notice. Notification of such activities, by the operator, shall be made at least 15 calendar days before commencing operations under this subpart by a written notice or letter.

(b) Approval of a notice, by the authorized officer, is not required. Consultation with the authorized officer may be required under § 3809.1-3(c)(3) of this title when the construction of access routes are involved. Notices properly filed under this section constitute authorization under part 8340 of this title (Off-Road Vehicles).

(c) The notice or letter shall include:

(1) Name and mailing address of the mining claimant and operator, if other than the claimant. Any change of operator or in the mailing address of the mining claimant or operator shall be reported promptly to the authorized officer;

(2) When applicable, the name of the mining claim(s), and serial number(s) assigned to the mining claim(s) recorded pursuant to Subpart 3833 of this title on which disturbance will likely take place as a result of the operations;

(3) A statement describing the activities proposed and their location in sufficient detail to locate the activities on the ground, and giving the approximate date when operations will start. The statement shall include a description and location of access routes to be constructed and the type of equipment to be used in their construction. Access routes shall be planned for only the minimum width needed for operations and shall follow natural contours, where practicable, to minimize cut and fill. When the construction of access routes involves slopes which require cuts on the inside edge in excess of 3 feet, the operator may be required to consult with the authorized officer concerning the most appropriate location of the access route prior to commencing operations;

(4) A statement that reclamation of all areas disturbed will be completed to the standard described in § 3809.1-3(d) of this title and that reasonable measures will be taken to prevent unnecessary or undue degradation of the Federal lands during operations.

(d) The following standards govern activities conducted under a notice:

(1) Access routes shall be planned for only the minimum width needed for operations and shall follow natural contours, where practicable to minimize cut and fill.

(2) All tailings, dumps, deleterious materials or substances, and other waste produced by the operations shall be disposed of so as to prevent unnecessary or undue degradation and in accordance with applicable Federal and State Laws.

(3) At the earliest feasible time, the operator shall reclaim the area disturbed, except to the extent necessary to preserve evidence of mineralization, by taking reasonable measures to prevent or control on-site and off-site damage of the Federal lands.

(4) Reclamation shall include, but shall not be limited to:

(i) Saving of topsoil for final application after reshaping of disturbed areas have been completed;

(ii) Measures to control erosion, landslides, and water runoff;

(iii) Measures to isolate, remove, or control toxic materials;

(iv) Reshaping the area disturbed, application of the topsoil, and revegetation of disturbed areas, where reasonably practicable; and

(v) Rehabilitation of fisheries and wildlife habitat.

(5) When reclamation of the disturbed area has been completed, except to the extent necessary to preserve evidence of mineralization, the authorized officer shall be notified so that an inspection of the area can be made.

(e) Operations conducted pursuant to this subpart are subject to monitoring by the authorized officer to ensure that operators are conducting operations in a manner which will not cause unnecessary or undue degradation.

(f) Failure of the operator to prevent undue or unnecessary degradation or to complete reclamation to the standards described in this subpart may cause the operator to be subject to a notice of noncompliance as described in § 3809.3-2 of this title.

(Sec. 2319 (30 U.S.C. 22); sec. 2478 (43 U.S.C. 1201) of the R.S. and the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.))

[45 FR 78909, Nov. 26, 1980; 45 FR 82934, Dec. 17, 1980, as amended at 48 FR 8816, Mar. 2, 1983]

§ 3809.1-4 Plan of operations—when required.

An approved plan of operations is required prior to commencing:

(a) Operations which exceed the disturbance level (5 acres) described in § 3809.1-3 of this title.

(b) Any operation, except casual use, in the following designated areas:

(1) Lands in the California Desert Conservation Area designated as 'controlled' or 'limited' use areas by the California Desert Conservation Area plan;

(2) Areas designated for potential addition to, or an actual component of the national wild and scenic rivers system,

(3) Designated Areas of Critical Environmental Concern;

(4) Areas designated as part of the National Wilderness Preservation System and administered by the Bureau of Land Management;

(5) Areas designated as "closed" to off-road vehicle use as defined in Subpart 8340 of this title.

(c) Plans properly filed and approved under this section constitute authorization under Part 8340 of this title (Off-Road Vehicles).

(Sec. 2319 (30 U.S.C. 22); sec. 2478 (43 U.S.C. 1201) of the R.S. and the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.))

[45 FR 78909, Nov. 26, 1980; 45 FR 82934, Dec. 17, 1980, as amended at 48 FR 8816, Mar. 2, 1983]

§ 3809.1-5 Filing and contents of plan of operations.

(a) A plan of operations must be filed in the District Office of the Bureau of Land Management having jurisdiction over the Federal lands in which the claim(s) or project area is located.

(b) No special form is required for filing a plan.

(c) The plan shall include:

(1) The name and mailing address of the operator (and claimant if not the operator). Any change of operator or change in the mailing address shall be promptly reported to the authorized officer;

(2) A map, preferably a topographic map, or sketch showing existing and/or proposed routes of access, aircraft landing areas, or other means of access, and size of each area where surface disturbance will occur;

(3) When applicable, the name of the mining claim(s) and mining claim serial numbers assigned to the mining claim(s) recorded pursuant to Subpart 3833 of this title.

(4) Information sufficient to describe or identify the type of operations proposed, how they will be conducted and the period during which the proposed activity will take place;

(5) Measures to be taken to prevent unnecessary or undue degradation and measures to reclaim disturbed areas resulting from the proposed operations, including the standards listed in § 3809.1-3(d) of this title. Where an operator advises the authorized officer that he/she does not have the necessary technical resources to develop such measures the authorized officer will assist the operator in developing such measures. If an operator submits reclamation measures, the authorized officer will ensure that the operator's plan is sufficient to prevent unnecessary or undue degradation. All reclamation measures developed by the operator, or by the authorized officer in conjunction with the operator, shall become a part of the plan of operations.

(6) Measures to be taken during extended periods of nonoperation to maintain the area in a safe and clean manner and to reclaim the land to avoid erosion and other adverse impacts. If not filed at the time of plan submittal, this information shall be filed with the authorized officer whenever the operator anticipates a period of nonoperation.

[45 FR 78909, Nov. 26, 1980; 45 FR 82934, Dec. 17, 1980]

§ 3809.1-6 Plan approval.

(a) A proposed plan of operations shall be submitted to the authorized officer, who shall promptly acknowledge receipt thereof to the operator. The authorized officer shall, within 30 days of such receipt, analyze the proposal in the context of the requirement to prevent unnecessary or undue degradation and provide for reason-

able reclamation, and shall notify the operator:

(1) That the plan is approved; or

(2) Of any changes in or additions to the plan necessary to meet the requirements of these regulations; or

(3) That the plan is being reviewed, but that a specified amount of time, not to exceed an additional 60 days, is necessary to complete the review, setting forth the circumstances which justify additional time for review. However, days during which the area of operations is inaccessible for inspection shall not be counted when computing the 60 day period; or

(4) That the plan cannot be approved until 30 days after a final environmental statement has been prepared and filed with the Environmental Protection Agency; or

(5) That the plan cannot be approved until the authorized officer has complied with section 106 of the National Historic Preservation Act or section 7 of the Endangered Species Act.

(b) The authorized officer shall consult with the appropriate official of the bureau or agency having surface management responsibilities where such responsibility is not exercised by the Bureau of Land Management. Prior to plan approval the authorized officer shall obtain the concurrence of such appropriate official to the terms and conditions that may be needed to prevent unnecessary or undue degradation.

(c) The authorized officer shall undertake an appropriate level of cultural resource inventory of the area to be disturbed. The inventory shall be completed within the time allowed by these regulations for approval of the plan (30 days). The operator is not required to do the inventory but may hire an archaeologist approved by the Bureau of Land Management in order to complete the inventory more expeditiously. The responsibility for and cost of salvage of cultural resources discovered during the inventory shall be the Federal Government's. The responsibility of avoiding adverse impacts on those cultural resources discovered during the inventory shall be the operator's.

(d) Pending final approval of the plan, the authorized officer shall approve any operations that may be necessary for timely compliance with requirements of Federal and State laws, subject to any terms and conditions that may be needed to prevent unnecessary or undue degradation.

(e) In the event of a change of operators involving an approved plan of operations, the new operator shall satisfy the requirements of § 3809.1-9 of this title as it relates to bonding.

[45 FR 78909, Nov. 26, 1980; 45 FR 82934, Dec. 17, 1980]

§ 3809.1-7 Modification of plan.

(a) At any time during operations under an approved plan, the operator on his/her own initiative may modify the plan or the authorized officer may request the operator to do so.

(b) A significant modification of an approved plan must be reviewed and approved by the authorized officer in the same manner as the initial plan.

(c)(1) If, when requested to do so by the authorized officer, the operator does not furnish a proposed modification within a reasonable time, usually 30 days, the authorized officer may recommend to the State Director that the operator be required to submit a proposed modification of the plan. The recommendation of the authorized officer shall be accompanied by a statement setting forth the facts and the reasons for the recommendations.

(2) In acting upon such recommendations the State Director shall determine, within 30 days, whether:

(i) All reasonable measures were taken by the authorized officer at the time the plan was approved to ensure that the proposed operations would not cause unnecessary or undue degradation of the Federal land;

(ii) The disturbance from the operations of the plan as approved or from unforeseen circumstances is or may become of such significance that modification of the plan is essential in order to prevent unnecessary or undue degradation; and

(iii) The disturbance can be minimized using reasonable means.

(3) Once the matter has been sent to the State Director, an operator is not required to submit a proposed modification of an approved plan until a de-

termination is made by the State Director. Where the State Director determines that a plan shall be modified, the operator shall timely submit a modified plan to the authorized officer for review and approval.

(4) Operations may continue in accordance with the approved plan until a modified plan is approved, unless the State Director determines that the operations are causing unnecessary or undue degradation to the land. The State Director shall advise the operator of those reasonable measures needed to avoid such degradation and the operator shall immediately take all necessary steps to implement those measures within a reasonable period established by the State Director.

§ 3809.1-8 Existing operations.

(a) Persons conducting operations on the effective date of these regulations, who would be required to submit a notice under § 3809.1-3 or a plan of operations under § 3809.1-4 of this title may continue operations but shall, within:

(1) 30 days submit a notice with required information outlined in § 3809.1-3 of this title for operations where 5 acres or less will be disturbed during a calendar year; or

(2) 120 days submit a plan in those areas identified in § 3809.1-4 of this title. Upon a showing of good cause, the authorized officer may grant an extension of time, not to exceed an additional 180 days, to submit a plan.

(b) Operations may continue according to the submitted plan during its review. If the authorized officer determines that operations are causing unnecessary or undue degradation of the Federal lands involved, the authorized officer shall advise the operator of those reasonable measures needed to avoid such degradation, and the operator shall take all necessary steps to implement those measures within a reasonable time recommended by the authorized officer. During the period of an appeal, if any, operations may continue without change, subject to other applicable Federal and State laws.

(c) Upon approval of a plan by the authorized officer, operations shall be conducted in accordance with the approval plan.

[45 FR 78909, Nov. 26, 1980; 45 FR 82934, Dec. 17, 1980]

§ 3809.1-9 Bonding requirements.

(a) No bond shall be required for operations that constitute casual use (§ 3809.1-2) or that are conducted under a notice (§ 3809.1-3 of this title).

(b) Any operator who conducts operations under an approved plan of operations as described in § 3809.1-5 of this title may, at the discretion of the authorized officer, be required to furnish a bond in an amount specified by the authorized officer. The authorized officer may determine not to require a bond in circumstances where operations would cause only minimal disturbance to the land. In determining the amount of the bond, the authorized officer shall consider the estimated cost of reasonable stabilization and reclamation of areas disturbed. In lieu of the submission of a separate bond, the authorized officer may accept evidence of an existing bond pursuant to State law or regulations for the same area covered by the plan of operations, upon a determination that the coverage would be equivalent to that provided in this section.

(c) In lieu of a bond, the operator may deposit and maintain in a Federal depository account of the United States Treasury, as directed by the authorized officer, cash in an amount equal to the required dollar amount of the bond or negotiable securities of the United States having a market value at the time of deposit of not less than the required dollar amount of the bond.

(d) In place of the individual bond on each separate operation, a blanket bond covering statewide or nationwide operations may be furnished at the option of the operator, if the terms and conditions, as determined by the authorized officer, are sufficient to comply with these regulations.

(e) In the event that an approved plan is modified in accordance with § 3809.1-7 of this title, the authorized officer shall review the initial bond for adequacy and, if necessary, adjust the amount of the bond to conform to the plan as modified.

(f) When all or any portion of the reclamation has been completed in ac-

cordance with the approved plan, the operator may notify the authorized officer that such reclamation has occurred and that she/he seeks a reduction in bond or Bureau approval of the adequacy of the reclamation, or both. Upon any such notification, the authorized officer shall promptly inspect the reclaimed area with the operator. The authorized officer shall then notify the operator, in writing, whether the reclamation is acceptable. When the authorized officer has accepted as completed any portion of the reclamation, the authorized officer shall authorize that the bond be reduced proportionally to cover the remaining reclamation to be accomplished.

(g) When a mining claim is patented, the authorized officer shall release the operator from that portion of the performance bond which applies to operations within the boundaries of the patented land. The authorized officer shall release the operator from the remainder of the performance bond, including the portion covering approved means of access outside the boundaries of the mining claim, when the operator has completed acceptable reclamation. However, existing access to patented mining claims, if across Federal lands shall continue to be regulated under the approved plan. The provisions of this subsection do not apply to patents issued on mining claims within the boundaries of the California Desert Conservation Area (See § 3809.6 of this title).

[45 FR 78909, Nov. 26, 1980; 45 FR 82934, Dec. 17, 1980]

§ 3809.2 Prevention of unnecessary or undue degradation.

§ 3809.2–1 Environmental assessment.

(a) When an operator files a plan of operations or a significant modification which encompasses land not previously covered by an approved plan, the authorized officer shall make an environmental assessment or a supplement thereto to identify the impacts of the proposed operations on the lands and to determine whether an environmental impact statement is required.

(b) In conjunction with the operator, the authorized officer shall use the environmental assessment to determine the adequacy of mitigating measures and reclamation procedures included in the plan to insure the prevention of unnecessary or undue degradation of the land. If an operator advises the authorized officer that he/she is unable to prepare mitigating measures, the authorized officer, in conjunction with the operator, shall use the environmental assessment as a basis for assisting the operator in developing such measures.

(c) If, as a result of the environmental assessment, the authorized officer determines that there is "substantial public interest" in the plan, the authorized officer shall notify the operator, in writing, that an additional period of time, not to exceed the additional 60 days provided for approval of a plan in § 3809.1–6 of this title, is required to consider public comments on the environmental assessment.

(Sec. 2319 (30 U.S.C. 22); sec. 2478 (43 U.S.C. 1201) of the R.S. and the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.))

[45 FR 78909, Nov. 26, 1980; 45 FR 82934, Dec. 17, 1980, as amended at 48 FR 8816, Mar. 2, 1983]

§ 3809.2–2 Other requirements for environmental protection.

All operations, including casual use and operations under either a notice (§ 3809.1–3) or a plan of operations (§ 3809.1–4 of this title), shall be conducted to prevent unnecessary or undue degradation of the Federal lands and shall comply with all pertinent Federal and State laws, including but not limited to the following:

(a) *Air quality.* All operators shall comply with applicable Federal and State air quality standards, including the Clean Air Act (42 U.S.C. 1857 *et seq.*).

(b) *Water quality.* All operators shall comply with applicable Federal and State water quality standards, including the Federal Water Pollution Control Act, as amended (30 U.S.C. 1151 *et seq.*).

(c) *Solid wastes.* All operators shall comply with applicable Federal and State standards for the disposal and treatment of solid wastes, including

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regulations issued pursuant to the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act (42 U.S.C. 6901 *et seq.*). All garbage, refuse or waste shall either be removed from the affected lands or disposed of or treated to minimize, so far as is practicable, its impact on the lands.

(d) *Fisheries, wildlife and plant habitat.* The operator shall take such action as may be needed to prevent adverse impacts to threatened or endangered species, and their habitat which may be affected by operations.

(e) *Cultural and paleontological resources.* (1) Operators shall not knowingly disturb, alter, injure, or destroy any scientifically important paleontological remains or any historical or archaeological site, structure, building or object on Federal lands.

(2) Operators shall immediately bring to the attention of the authorized officer any cultural and/or paleontological resources that might be altered or destroyed on Federal lands by his/her operations, and shall leave such discovery intact until told to proceed by the authorized officer. The authorized officer shall evaluate the discoveries brought to his/her attention, take action to protect or remove the resource, and allow operations to proceed within 10 working days after notification to the authorized officer of such discovery.

(3) The Federal Government shall have the responsibility and bear the cost of investigations and salvage of cultural and paleontology values discovered after a plan of operations has been approved, or where a plan is not involved.

(f) *Protection of survey monuments.* To the extent practicable, all operators shall protect all survey monuments, witness corners, reference monuments, bearing trees and line trees against unnecessary or undue destruction, obliteration or damage. If, in the course of operations, any monuments, corners, or accessories are destroyed, obliterated or damaged by such operations, the operator shall immediately report the matter to the authorized officer. The authorized officer shall prescribe, in writing, the requirements for the restoration or reestablishment of monuments, corners, bearing and line trees.

(Sec. 2319 (30 U.S.C. 22); sec. 2478 (43 U.S.C. 1201) of the R.S. and the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.))

[45 FR 78909, Nov. 26, 1980; 45 FR 32934, Dec. 17, 1980, as amended at 48 FR 8816, Mar. 2, 1983]

§ 3809.3 General provisions.

§ 3809.3-1 Applicability of State law.

(a) Nothing in this subpart shall be construed to effect a preemption of State laws and regulations relating to the conduct of operations or reclamation on Federal lands under the mining laws.

(b) After the publication date of these regulations the Director, Bureau of Land Management, shall conduct a review of State laws and regulations in effect or due to come into effect, relating to unnecessary or undue degradation of lands disturbed by exploration for, or mining of, minerals locatable under the mining laws.

(c) The Director may consult with appropriate representatives of each State to formulate and enter into agreements to provide for a joint Federal-State program for administration and enforcement. The purpose of such agreements is to prevent unnecessary or undue degradation of the Federal lands from operations which are conducted under the mining laws, to prevent unnecessary administrative delay and to avoid duplication of administration and enforcement of laws. Such agreements may, whenever possible, provide for State administration and enforcement of such programs.

[45 FR 78909, Nov. 26, 1980; 45 FR 82934, Dec. 17, 1980]

§ 3809.3-2 Noncompliance.

(a) Failure of an operator to file a notice under § 3809.1-3 of this title or a plan of operations under § 3809.1-4 of this title will subject the operator, at the discretion of the authorized officer, to being served a notice of noncompliance or enjoined from the continuation of such operations by a court order until such time as a notice or plan is filed with the authorized of-

ficer. The operator shall also be responsible to reclaim operations conducted without an approved plan of operations or prior to the filing of a required notice.

(b) Failure to reclaim areas disturbed by operations under § 3809.1-3 of this title is a violation of these regulations.

(1) Where an operator is conducting operations covered by 3809.1-3 (notice) of this title and fails to comply with the provisions of that section or properly conduct reclamation according to standards set forth in 3809.1-3(d) of this title, a notice of noncompliance shall be served by delivery in person to the operator or his/her authorized agent, or by certified mail addressed to his/her address of record.

(2) Operators conducting operations under an approved plan of operations who fails to follow the approved plan of operations may be subject to a notice of noncompliance. A notice of noncompliance shall be served in the same manner as described in § 3809.3-2(b)(1) of this section.

(c) All operators who conduct operations under a notice pursuant to § 3809.1-3 and a plan pursuant to § 3809.1-4 of this title on Federal lands without taking the actions specified in a notice of noncompliance within the time specified therein may be enjoined by an appropriate court order from continuing such operations and be liable for damages for such unlawful acts.

(d) A notice of noncompliance shall specify in what respects the operator is failing or has failed to comply with the requirements of applicable regulations, and shall specify the actions which are in violation of the regulations and the actions which shall be taken to correct the noncompliance and the time, not to exceed 30 days, within which corrective action shall be started.

(e) Failure of an operator to take necessary actions on a notice of noncompliance, may constitute justification for requiring the submission of a plan of operations under § 3809.1-5 of this title, and mandatory bonding for subsequent operations which would otherwise be conducted pursuant to a notice under § 3809.1-3 of this title.

[45 FR 78909, Nov. 26, 1980; 45 FR 82934, Dec. 17, 1980]

§ 3809.3-3 Access.

(a) An operator is entitled to access to his operations consistent with provisions of the mining laws.

(b) Where a notice or a plan of operations is required, it shall specify the location of access routes for operations and other conditions necessary to prevent unnecessary or undue degradation. The authorized officer may require the operator to use existing roads to minimize the number of access routes, and, if practicable, to construct access roads within a designated transportation or utility corridor. When commercial hauling is involved and the use of an existing road is required, the authorized officer may require the operator to make appropriate arrangements for use and maintenance.

§ 3809.3-4 Fire prevention and control.

The operator shall comply with all applicable Federal and State fire laws and regulations, and shall take all reasonable measures to prevent and suppress fires in the area of operations.

§ 3809.3-5 Maintenance and public safety.

During all operations, the operator shall maintain his structures, equipment, and other facilities in a safe and orderly manner. Hazardous sites or conditions resulting from operations shall be marked by signs, fenced, or otherwise identified to alert the public in accordance with applicable Federal and State laws and regulations.

§ 3809.3-6 Inspection.

The authorized officer may periodically inspect operations to determine if the operator is complying with these regulations. The operator shall permit the authorized officer access for this purpose.

§ 3809.3-7 Periods of non-operation.

All operators shall maintain the site, structures and other facilities of the operations in a safe and clean condition during any non-operating periods. All operators may be required, after an extended period of non-operation

for other than seasonal operations, to remove all structures, equipment and other facilities and reclaim the site of operations, unless he/she receives permission, in writing, from the authorized officer to do otherwise.

§ 3809.4 Appeals.

(a) Any operator adversely affected by a decision of the authorized officer made pursuant to the provisions of this subpart shall have a right of appeal to the State Director, and thereafter to the Board of Land Appeals, Office of Hearings and Appeals, pursuant to Part 4 of this title, if the State Director's decision is adverse to the appellant.

(b) No appeal shall be considered unless it is filed, in writing, in the office of the authorized officer who made the decision from which an appeal is being taken, within 30 days after the date of receipt of the decision. A decision of the authorized officer from which an appeal is taken to the State Director shall be effective during the pendency of an appeal. A request for a stay may accompany the appeal.

(c) The appeal to the State Director shall contain:

(1) The name and mailing address of the appellant.

(2) When applicable, the name of the mining claim(s) and serial number(s) assigned to the mining claims recorded pursuant to Subpart 3833 of this title which are subject to the appeal.

(3) A statement of the reasons for the appeal and any arguments the appellant wishes to present which would justify reversal or modification of the decision.

(d) The State Director shall promptly render a decision on the appeal. The decision shall be in writing and shall set forth the reasons for the decision. The decision shall be sent to the appellant by certified mail, return receipt requested.

(e) The decision of the State Director, when adverse to the appellant, may be appealed to the Board of Land Appeals, Office of Hearings and Appeals, pursuant to Part 4 of this title.

(f) Any party, other than the operator, aggrieved by a decision of the authorized officer shall utilize the appeals procedures in Part 4 of this title. The filing of such an appeal shall not stop the authorized officer's decision from being effective.

(g) Neither the decision of the authorized officer nor the State Director shall be construed as final agency action for the purpose of judicial review of that decision.

(Sec. 2319 (30 U.S.C. 22); sec. 2478 (43 U.S.C. 1201) of the R.S. and the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.))

[45 FR 78909, Nov. 26, 1980, as amended at 48 FR 8816, Mar. 2, 1983]

§ 3809.5 Public availability of information.

(a) Information and data submitted and specifically identified by the operator as containing trade secrets or confidential or privileged commercial or financial information shall not be available for public examination. Other information and data submitted by the operator shall be available for examination by the public at the office of the authorized officer in accordance with the provisions of the Freedom of Information Act.

(b) The determination concerning specific information which may be withheld from public examination shall be made in accordance with the rules in 43 CFR Part 2.

§ 3809.6 Special provisions relating to mining claims patented within the boundaries of the California Desert Conservation Area.

In accordance with section 601(f) of the Federal Land Policy and Management Act of October 21, 1976, all patents issued on mining claims located within the boundaries of the California Desert Conservation Area after the enactment of the Federal Land Policy and Management Act shall be subject to the regulations in this part, including the continuation of a plan of operations and of bonding with respect to the land covered by the patent.

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BUREAU OF LAND MANAGEMENT

Alaska State Office
701 C Street, Box 13
Anchorage, Alaska 99513

IN REPLY REFER TO

1606.3 (933)
ANILCA

May 11, 1984

Instruction Memorandum No. AK 84-339
Expires: 9/30/85

To: DM's, DSD's, M-AFS, and Public Affairs

From: State Director, Alaska

Subject: Policy for Alaska National Interest Lands Conservation Act (ANILCA), Section 810 Compliance

We have been following an interim policy for fulfilling the requirements of ANILCA Section 810 (Subsistence), since March 5, 1981. Recent events have indicated a need to revise that policy. The policy/procedure contained herein replaces IM AK 81-114 and is effective immediately. This policy was developed from the BLM-AK Subsistence Workshop, DOI NPR-A court briefs, U.S. District Court (Alaska) decision on NPR-A leasing, NPR-A modified R.O.D., and other related materials. The collaborative efforts of Robert King (FDO), consultation with Keith Goltz (Regional Solicitor's Office), and excellent reviews of drafts by several individuals or offices have greatly assisted in the development of this policy.

The Department of Interior and an Alaska Land Use Council (LUC) subcommittee on subsistence are developing 810 policy/procedures for use by all federal agencies. They are using BLM's procedure for development purposes. Modification of the policy herein may result from the LUC or Departmental process. It may also be revised based upon your comments, and experience over time and situations.

If this material raises questions or if you wish to arrange a briefing contact Robert King (FDO), (907/FTS) 356-5179 or David Dorris (ASO), (907/FTS) 271-3349.

Fred Wolf
State Director
(ACTING)

Enclosures:

Encl. 1 - Compliance with ANILCA (7 pp)
Encl. 2 - Chart (1 p)
Encl. 3 - 3809 Mining Plans (1 p)
Encl. 4 - Fire Planning (1 p)
Encl. 5 - Evaluation of Permits for Activities Relating to Subsistence (1 p)
Encl. 6 - Categorical Exclusions (1 p)
Encl. 7 - Subsistence Evaluation Component 2 (2 pp)
Encl. 8 - Subsistence Evaluation Component 3 (2 pp)
Encl. 9 - Significance (3 pp)
Encl. 10 - Public Hearings (1 pp)
Encl. 11 - Determinations (2 pp)
Encl. 12 - Permits and 810 Subsistence Evaluation (8 pp)

Distribution:
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Enclosures are not reproduced in this document. They are available for public reading in the Fairbanks District Office.

Part III The Management Program

Introduction

The following management actions are the result of a careful evaluation of the objectives, issues, concerns, and constraints discussed in Part II of this report. An attempt has been made to respond to the concerns of various user groups without compromising the values for which the river was designated. This management program will be evaluated periodically to determine what changes may be necessary.

Most of the following management actions apply equally to lands in the river corridor inside the White Mountains NRA and the Yukon Flats NWR. Where differences in management within the river corridor exist between the BLM and FWS administered lands, a separate management action statement is specified.

Management Actions

Item I - SURFACE TRANSPORTATION

Action 1.1: Overland transportation systems within or across the river corridor may be authorized if it is determined that there are no economically feasible and prudent alternative routes (ANILCA Section 1105).

Discussion: Any authorized transportation system must be compatible with wild river values, and shall be located and constructed in a manner that does not interfere with or impede stream flow or transportation on the river. Locations and construction techniques shall be selected to minimize adverse effects on scenic, recreational, fish and wildlife, and other values of the river area (ANILCA Section 1107).

Action 1.2: Access to mining claims located outside the river corridor prior to ANILCA and with acceptable proof of discovery will be managed under existing surface protection regulations (43 CFR 3809, FWS 50 CFR Part 36).

Discussion: 43 CFR 3809 and 50 CFR Part 36 requires a "plan of operations" from all mining claimants planning surface disturbing activities within the White Mountains NRA, the Yukon Flats NWR or in the river corridor. These plans must include a detailed description of access needs. The land manager will specify vehicle types, season of use, and reclamation procedures to minimize impacts.

Action 1.3: On BLM administered areas, use of off-road vehicles weighing less than 1,500 pounds GVW is authorized without a permit. Use of vehicles weighing more than 1,500 pounds GVW is prohibited without authorization or approved plan of operations. On FWS administered areas, off-road vehicle use, other than snowmobiles, is prohibited without a permit or approved plan of operations.

Discussion: For vehicle use requiring a permit, the land manager will assure adequate and feasible surface access to Federal, State or privately owned land,

properly located mining claims, other valid occupancy, or for other proposals subject to reasonable regulations to protect the natural and other values of the national wild river (ANILCA Section 1110).

The location, time of year and the type of vehicle shall be selected to minimize adverse effects on scenic, recreational, fish, wildlife, and other values of the river corridor.

Action 1.4: A program will be established to monitor the effect of vehicle use within the river corridor boundary.

Discussion: Limitations on vehicle use (such as limiting use to identified routes) may be imposed if significant problems are found to be occurring.

Action 1.5 The land manager will work cooperatively with the State of Alaska to identify all rights-of-way claimed pursuant to RS2477 within the river boundaries for administrative purposes.

Discussion: When rights or title are granted directly by statute, such as RS2477, the land manager cannot adjudicate these rights. However, for the purposes of carrying out the land manager's administrative duties, a determination may be made. Such a determination would not affect the legality of an RS2477 right-of-way, but would provide a basis for administrative actions such as acceptance of right-of-way applications or trespass actions.

Action 1.6: Use of motorized boats is permitted without specific authorization.

Discussion: The past location of use, types of boats, and horse power levels are considered compatible with the values of the national wild river and no limitations to protect values are presently necessary. Hovercraft and airboats are not considered compatible and will not be authorized.

Item 2 - AIRCRAFT USE

Action 2.1: Construction of new public landing strips within the river corridor may be allowed if there is an identified and significant public need.

Discussion: Landing strips must be compatible with the river values and it must be shown that there is no economically feasible and prudent alternative site (ANILCA, Sections 1102-1105).

Action 2.2: On BLM administered areas, landing of fixed wing or rotary wing aircraft is pemitted without specific authorization. On FWS administered areas, the landing of fixed wing aircraft is permitted without specific authorization. Landing of rotary wing aircraft must have specific written authorization in advance from the land manager.

Discussion: Present use is incidental, with no significant adverse affects on the river corridor. In the future, specific areas may be closed to such access to facilitate resource protection (such as for peregrine falcon critical habitat).

Item 3 - MINERALS MANAGEMENT

Action 3.1: The land manager shall cooperate with private land owners, mining operators, and the State of Alaska to ensure that mineral exploration and development on non-federal lands which may affect the river corridor are developed to minimize adverse effects on the national wild river. Mining operations in the White Mountains NRA and the Yukon Flats NWR outside the river corridor boundary will be addressed in the respective land use plans now being prepared.

Action 3.2: Improperly located mining claims will be adjudicated in a timely fashion.

Discussion: The river corridor will be designated as a priority area for mineral adjudication. Adjudication will determine if claims are located in compliance with existing land orders and issue any necessary decisions. Claims improperly located and operating will consitute mineral trespass.

Action 3.3: Mineral right-of-way applications will be administered as described in 43 CFR 2880.

Action 3.4: On BLM administered areas within river corridor boundary, mineral collection for personal recreation using a gold pan, shovel, or other nonmotorized means is allowed without specific authorization in areas where there are no existing claims or private lands. On FWS administered areas, only the use of a gold pan is allowed.

Item 4 - WATER QUALITY

Action 4.1: All use authorizations will include measures to control water pollution.

Discussion: Using accepted techniques, the user must make every reasonable attempt to achieve established water quality standards for both water discharge and sewage disposal.

Action 4.2: The land manager shall cooperate with the Alaska Department of Environmental Conservation, and where appropriate, the U.S. Environmental Protection Agency, for the purpose of preventing, eliminating, or diminishing the pollution of river water consistent with the Federal Clean Water Act or Federally Approved State Water Quality Standards.

Item 5 - WATER RIGHTS

Action 5.1: A reservation of minimum water flows sufficient for public recreation and to support the values for which the area was designated will be determined in cooperation with the Alaska Department of Natural Resources, Division of Land and Water Management.

Discussion: The jurisdiction of the State over waters within the Beaver Creek National Wild River watershed shall not be affected by the designation to the extent that such jurisdiction may be exercised without impairing the purposes for which the national wild river was established (WSRA Section 13).

Item 6 - FACILITY MANAGEMENT

Action 6.1: No new developed recreation facilities within the river corridor are proposed by this management plan.

Discussion: Basic minimum facilities, such as toilets, refuse containers, or primitive campsites may be authorized in the future to mitigate user impacts on the resource. If these types of facilities are necessary, they will generally be located at access points or at a sufficient distance from the riverbank to minimize their potential adverse impact.

Recreational hiking trails across or within the river corridor may be authorized.

Consideration will be given in the White Mountain National Recreation Area Land Use Plan to assure continued surface access via the Steese and Elliott Highways and the establishment of developed recreation facilities, outside the river corridor.

Action 6.2: The construction of new cabins or temporary structures such as for trapping may be authorized pursuant to a nontransferable, five-year special use permit issued by the land manager.

Discussion: Special use permits will be issued upon a determination that the proposed use, construction, and maintenance of a cabin is compatible with the purpose for which the national wild river was established (ANILCA Section 1303).

Permit conditions should include setbacks beyond the line-of-sight of the river, timber cutting, sanitation, and access.

Special use permits will not be issued to authorize the construction of a cabin for private or commercial recreation use.

Action 6.3: Traditional and customary uses of existing cabins and related structures within the river corridor may be allowed to continue in accordance with a nontransferable, renewable, five-year special use permit, in the same manner as described for new cabins (ANILCA Section 1303).

Discussion: In situations where an authorization for cabin construction and use was not issued and no owners can be identified, the cabin may be posted and made available as a public recreation shelter.

Item 7 - VISITOR MANAGEMENT

Action 7.1: The river corridor will be managed to be essentially free from evidence of recreation management induced restriction or activities, such as permit systems or signs.

Discussion: Minimum on-site restrictions or recreation management activities may be authorized by the land manager to protect the public health and safety, or to protect resource values.

Action 7.2: Public information on Beaver Creek National Wild River should emphasize resources protection measures, and visitor safety guidelines.

Action 7.3: Permits are required for all commercial river guides and outfitters operating within the river corridor.

Discussion: The impact of commercial river guides and outfitters will be closely monitored to ensure that the values for which the river area was designated are maintained. Should limitations on use to mitigate resources or user conflicts become necessary, priority on use will be allocated to noncommercial recreationists.

Item 8 - NON-FEDERAL LAND

Action 8.1: The land manager shall cooperate with non-Federal landowners to ensure that the purposes for which the river was designated are met to the greatest extent feasible and to ensure that non-Federal land owners are not unduly emcumbered.

Action 8.2: A cooperative agreement will be negotiated with the State of Alaska for planning, administration, and management for the navigable portion of Beaver Creek.

Discussion: The cooperative agreement should include the following topics:

- State objectives and policies for the beds of navigable wild rivers.
- Administrative agreement on the location of the "ordinary high water mark."
- Rights of State mineral claimants.
- Guidelines for management of mining operations on a navigable riverbed. These guidelines should include provisions for operations, access, and camping, designed to minimize impacts on wild river values.
- Guidelines for visitor management, including commercial use.

Action 8.3: The land manager shall cooperate with non-Federal landowners to ensure adequate and feasible access to their lands, subject to reasonable regulations to protect the natural and other values of the national wild river.

Action 8.4: Condemnations will not be used to acquire fee title to lands. Non-Federal lands and interests in lands adjacent to the river corridor may be acquired through mutually acceptable and agreed upon exchanges, sales or donations (WSRA Section 6).

Item 9 - FISH AND WILDLIFE

Action 9.1: Conduct an inventory of fish, wildlife, and habitat within the river corridor, and continue to monitor the effects of river management actions, population trends, and habitat use.

Discussion: Management priority will be given to peregrine falcon and crucial habitats of caribou, moose, fish, and raptors.

Action 9.2: Cooperate with the Alaska Department of Fish and Game to maintain, improve, or increase fish, wildlife, and habitat within the river corridor.

Item 10 - HUNTING, FISHING, AND TRAPPING

Action 10.1: Hunting, fishing, and trapping are permitted, subject to applicable State and Federal laws and regulations (WSRA Section 13).

Discussion: Nothing in the river designation affects the jurisdiction of the State of Alaska with respect to the management of fish and wildlife.

Item 11 - SUBSISTENCE

Action 11.1: The management of the river corridor is to cause the least adverse impact possible on subsistence values (ANILCA Section 802).

Discussion: Nothing in the river designation affects the jurisdiction of the State of Alaska with respect to subsistence.

Item 12 - FIRE MANAGEMENT

Action 12.1: Protecting human life and property and restoring the natural fire regime to the river area shall be the principal fire management considerations in the river corridor.

Discussion: Prescribed burning may be used for wildlife habitat improvement, fuels management, or for other purposes consistent with the Wild and Scenic Rivers Act. Wildfire management will be consistent with the Upper Yukon-Tanana Interagency Fire Management Plan.

Item 13 - HISTORIC AND ARCHAEOLOGICAL RESOURCES

Action 13.1: Prepare and maintain an inventory of historic and archaeological values within the river corridor.

Discussion: Areas or structures which are most likely to be adversely impacted by activities in the river corridor will be given inventory priority.

Action 13.2: Protect significant cultural resources and mitigate impacts on sites which may adversely be affected by activities within the river corridor.

Item 14 - SCENIC QUALITY

Action 14.1: The river corridor shall be managed to maintain the natural landscape.

Discussion: BLM policy states that changes in the scenic quality caused by a land use activity should be minimized within the boundaries of a wild river corridor. Areas within the river corridor which are not natural in appearance should be rehabilitated whenever possible.

Item 15 - WATER RESOURCES MANAGEMENT

Action 15.1: A system for the transportation of water, such as a canal, ditch, pipeline, or diversion, may be allowed, provided certain conditions are met (ANILCA Section 1107).

Discussion: These types of developments will be subject to such conditions as may be necessary to assure that the stream flow of, and transportation on Beaver Creek is not interfered with or impeded and that the system is located and constructed in an environmentally sound manner.

Action 15.2: Dams, reservoirs, power houses, flood control dams, levees, and similar developments are prohibited (WSRA Section 7).

Item 16 - NEW PIPELINE AND ELECTRICAL TRANSMISSION LINES

Action 16.1: New pipelines, electrical transmission lines, and similar transmission, distribution, or transportation systems may be permitted within or across the river corridor (ANILCA Sections 1102-1107).

Discussion: Before such a system will be authorized a determination must first be made that it would be compatible with the purposes for which the national wild river was established and that there is no economically feasible and prudent alternative route or location. Any authorized system shall be located and constructed in an environmentally sound manner and in a manner that does not interfere with or impede stream flow or transportation on the river. Locations and construction techniques shall be selected to minimize adverse effects on scenic, recreational, fish and wildlife, and other values of the river area (ANILCA Sections 1102 - 1107).

Item 17 - FORESTRY AND VEGETATIVE RESOURCES

Action 17.1: The land manager may issue permits for the noncommercial harvest of fuelwood or house logs, for local use, if there is no economically feasible and prudent alternative to doing so. Commercial harvest of timber within the river corridor is prohibited.

Discussion: The harvesting technique shall be selected to minimize adverse effects on the resource values of the river corridor.

Action 17.2: Prepare and maintain an inventory of the vegetative resources within the river corridor.

Discussion: Management priority will be given to sensitive, threatened, or endangered plant species.

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- Semi-primitive Motorized
- Reseorch Naturol Areo
- Wild River Corridor

RECREATION FACILITIES

- Proposed Vehicle Access
- Proposed Snowmobile Troil
- Proposed Hiking Troil
- Proposed Shelter/Use Cabin
- Proposed Troilhead
- Proposed Compground
- Existing Troil
- Existing Shelter/Use Cabin
- Existing Troilhead

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